The Builder.

No. CCXI.

SATURDAY, DECEMBER 19, 1846.

MR. HAY'S reputation as a writer on decoration, and certain preliminary flourishes as to his doings at the Society of Arts in the Adelphi, led us, perhaps, to enter the hall there with too great expectations. Certain it is we were much disappointed. If the society, after a certain vacation, and the employment of an ordinary decorator, had opened the room at the commencement of their session without comment, we should probably have thought it very satisfactorily fitted up, and agreeably painted. But as an example of superior art,—a specimen of the best we can do,—we are unable to pronounce it successful.

Intrusted with the embellishment of the hall of a society which has for its object the advancement of the ornamental and useful arts, Mr. Hay says, he naturally felt much anxiety as to the result of his labours; and this anxiety was increased by the reflection, that his work must necessarily be of a nature calculated to accompany one of the greatest efforts in high art of which this country can boast. His first object, therefore, was to adopt such a style of decoration as should not only embellish the hall, but at the same time give additional effect to those great works of art which it contains, connecting the whole in one general harmony of form and colour.

Accordingly, to bring out the true and natural effect of the pictures, he has surrounded them with cloth of a deep purple hue; in the belief, that the nature of its surface is rather to absorb than reflect the rays of light that fall upon it, and consequently to give greater effect to the pigments employed by the artist.

The wall is terminated by a slightly enriched cornice, surmounted by a plain cove 8 feet 4 inches wide; and with this the decorator's work begins. The cove is followed by a narrow border of stucco work, then a flat space also quite plain, then the aperture for the cupola-light. The sides of the aperture are formed into panels by a narrow moulding.

The cornice he has sought to unite with the walls, by painting it of a *terra cotta* hue. On the plain surface of the cove which surmounts the cornice, the decorator has confined himself to what he calls "a simple combination of geometric with chromatic harmony," representing mosaic work of *giallo antico*, *rosso antico*, *lapis lazuli*, and inlaid gold.

"The band of stucco work which divides this cove from the flat part of the ceiling is painted pure white, to represent the statuary marble, as are also the mouldings round and upon the aperture that leads to the cupola light. This was adopted in preference to the *terra cotta* colour of the cornice, as being equally appropriate and more light in effect." (We should think so, too.) "The flat part of the ceiling is also enriched by a mosaic work of a similar chromatic harmony of the same marbles, but of a different harmony of form from that of the cove, and without gold. The panels in the space leading to the cupola, are similarly enriched by a mosaic work, composed of *lapis lazuli* and *siena* combined with inlaid gold."

The figures forming the design in the cove, still following Mr. Hay's own explanation, are produced by the combination of elliptic bands round central points; and the reason for adopting this curve in the space nearest the pictures was, that the curves which form the outline of the human figure, are more allied to the ellipse than any other regular curvilinear figure. In contrast to this arrangement, the flat part of the ceiling which divides the cove from the cupola, is filled with a rectilinear design, formed by a combination of equilateral triangles, producing hexagonal and rhomboid figures, in which are introduced the rose, thistle, and shamrock.

The panels in the sides of the opening for light, are filled with a pattern formed by the combination of a triangle and circle, and in the centre of each panel is an emblazoned shield.*

Now this description, which we have endeavoured to make correct, probably sounds very well; but the fact is, the intention is marred in the execution. Instead of "a *combination* of geometric with chromatic harmony," there is neither one nor the other. As regards the first, or geometric harmony, the "elliptic bands round central points" being developed *on a coved surface*, are distorted, and at each angle of the ceiling, where the sides of the cove meet, and are separated by an upright band, the pattern is so mutilated, so imperfect, as to produce a disagreeable effect on the careful examiner, who would seek in such positions evidence of the art of the designer. Then as to the chromatic harmony, it is too much like monotony (in the daylight at least, we have not yet seen it at night), and the tone is "foxy." In the upper part of the ceiling, where blue predominates, the chromatic effect is more agreeable. The rectilinear pattern in the flat surface above the cone, however, is mutilated at its junction with the band, which surrounds the opening for light, or has a mutilated effect, which is the same thing in decoration. We must confess our surprise, that one who appears to understand so well what ought to be done, has not been more successful in the present case. The cost of the ceiling alone, it is said, would have been, under ordinary circumstances, 500*l*.†

Barry's noble pictures have been freed from the dirt which obscured them, and are seen to great advantage. Two of them (the Orpheus especially) shew considerable injuries, which have been attributed to the mode adopted in cleansing them. Those who conducted the operation, however, state that the damage was done ten or twelve years ago by injudicious varnishing, rendered necessary by the partial failure of the vehicle with which Barry at first painted.

It is to be hoped that they will be examined by competent persons, and all proper steps be taken to ensure their preservation. We have few such to show in England.

In the entrance-hall and passage to stairs, a mosaic pavement has been laid by Mr. Blashfield. It consists of thousands of small tesseræ on a concrete bottom, and is admirably done; in fact, perhaps it is the best specimen we have yet seen. The centre of the main hall is the copy of a pavement in Rome, of which drawings were recently sent over by Mr. Wyatt. The pattern adopted in the passage is too much like that of ordinary floorcloth.

We are glad to find this ancient and useful society reviving: the decorations of which we have spoken, notwithstanding what we felt compelled to say of them in a critical point of view, will tend materially to advance its progress, and they entitle the individuals to whose liberality the society is indebted for them, to great praise. Should it appear hereafter, that Mr. Hay is himself the most important contributor, as is not unlikely, we may be inclined to regret the free expression of our opinion.

* The Royal arms, the arms of Prince Albert, the badge of the Society, and the arms of Barry, the painter! When we are boxed and ticketed, says Landor, we are prized and shewn.

† At the opening meeting, on Wednesday night last, a paper by Mr. Hay, on the first principles of symmetrical beauty, and on the principles employed in the decoration of the hall in question, was read. We shall refer to it.

THE ART-UNION OF LONDON.

CHARTER OF INCORPORATION.

THE charter for the Art-Union of London, the first granted under the new Act of Parliament, having been drawn up with much care, to serve as a precedent in other cases, we are induced to give it in full.

VICTORIA, by the grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, to all to whom these Presents shall come, Greeting: Whereas Our right dearly-beloved Uncle, Adolphus Frederick, Duke of Cambridge, hath, by his Petition, humbly represented unto Us, that he and divers others of our loving subjects have associated together, and have formed a society under the name of "The Art-Union of London," for the general advancement of the fine arts, and for promoting and facilitating a greater knowledge and love of the arts of design on the part of the public generally, and, for the purposes aforesaid, have raised sums of money amounting to one hundred thousand pounds, or thereabouts, by subscription, or contribution, to be allotted and distributed by chance as prizes amongst them, on the condition, nevertheless, that such sums of money so allotted and distributed be expended solely and entirely in the purchase of paintings, drawings, sculpture, or other works of art; and have also purchased paintings and other works of art, to be afterwards allotted and distributed by chance among them; and have entered into, and will have to enter into, important and lasting pecuniary engagements for carrying out the objects of the said society; and that by an Act of Parliament passed in this tenth year of our reign, intituled, "An Act for legalizing Art-Unions," reciting to the effect that certain voluntary associations had been and might thereafter be formed in various parts of the United Kingdom, under the name of Art-Unions, for the purposes in the said Act mentioned (being similar to the purposes of the said association so entered into by the said petitioner and the said other parties), and that the allotment and distribution of paintings, drawings, or other works of art, or of sums of money for their purchase, and the proceedings taken to carry the same into effect, might be deemed and taken to come within the provisions of the several Acts of Parliament passed for the prevention of lotteries, littlegoes, and unlawful games, whereby the members, subscribers, or contributors of such associations as aforesaid, or persons acting under their authority, or on their behalf, might be liable or subjected to certain pains and penalties imposed by law on persons concerned in lotteries, littlegoes, and unlawful games, and reciting that it was expedient that all members of and subscribers and contributors to such voluntary associations as aforesaid, and all persons acting under their authority, or on their behalf, so long only as their proceedings are carried on in good faith for the encouragement of the fine arts, should be discharged from any pains and penalties to which they might have rendered themselves liable, or might thereafter render themselves liable, by reason of any such their proceedings: after enacting as therein is enacted, it is enacted, that all such voluntary associations as aforesaid then constituted, or which might thereafter be constituted according to the provisions thereinafter mentioned, should be deemed to be lawful associations, and the members of and subscribers and contributors to all such lawful associations, and all persons acting under their authority, or on their behalf, for the purposes aforesaid, should be freed and discharged from all pains and penalties, suits, prosecutions, and liabilities, to which by law they would be liable but for the passing of that Act as therein mentioned: provided always, that a royal charter or charters should have been first obtained for the incorporation of any such association, or provided other acts were done as in the said Act mentioned; and hath represented unto Us that the establishment and maintenance of such their association would greatly tend to the extension and improvement of the fine arts in this kingdom, and that they have been advised that the object of their undertaking would be more effectually obtained were the same to receive our royal sanction and confirmation, and he hath besought us to grant to them and to those who shall hereafter become members of the same society our royal charter of incorporation for the purposes aforesaid: now know ye, that we, being desirous of encouraging and promoting a design so laudable and beneficial, of our especial grace, certain knowledge, and mere motion, have willed, granted, and declared, and do by these presents, for us, our heirs and successors, will, grant, and declare, that the said Adolphus Frederick, Duke of Cambridge, and such others of our loving subjects as have formed themselves into and

are now members of the said society, or who shall at any time hereafter become members thereof, according to such regulations or bye laws as shall be hereafter framed or enacted, shall, by virtue of these presents, be the members of and form one body politic and corporate, for the purposes aforesaid, by the name of "The Art Union of London," by which name they shall have perpetual succession and a common seal, with full power and authority to alter, vary, break, and renew the same at their discretion, and by the same name to sue and be sued, implead and be impleaded, answer and be answered unto, in every court of us, our heirs and successors, and be for ever able and capable in the law to purchase, receive, possess, and enjoy to them and their successors any goods and chattels whatsoever; and also be able and capable in the law (notwithstanding the statutes of Mortmain), to take, purchase, possess, hold, and enjoy to them and their successors, a gallery or galleries, and any messuages, lands, tenements, and hereditaments whatsoever, the yearly value of which, including the site of the said gallery or galleries, shall not exceed in the whole the sum of two thousand pounds, computing the same respectively at the rack-rent which might have been had or gotten for the same respectively at the time of the purchase or acquisition thereof, and to act in all the concerns of the said body politic and corporate for the purposes aforesaid, as fully and effectually, to all intents, effects, constructions, and purposes whatsoever, as any other of our liege subjects, or any other body politic or corporate in our United Kingdom of Great Britain and Ireland, not being under any disability, might do in their respective concerns.

And we do hereby grant our special license and authority unto all and every person and persons, bodies politic and corporate, otherwise competent, to grant, sell, alien, and convey in mortmain unto, and to the use of the said society and their successors, any messuages, lands, tenements, or hereditaments, not exceeding such annual value as aforesaid.

And our will and pleasure is, and we further grant and declare, that there shall be general meetings of the members of the said body politic and corporate, to be held from time to time as hereinafter mentioned; and that there shall always be a council to direct and manage the affairs of the said body politic and corporate, and that the council shall have the entire direction and management of the same, in the manner and subject to the regulations hereinafter mentioned; but our will and pleasure is, that at all general meetings and meetings of the council, the majority of the members present, and having a right to vote thereat respectively, shall decide upon the matters propounded at such meetings, the person presiding therein having, in case of an equality of numbers, a second or casting vote.

And we do hereby also will, grant, and declare, that the council shall consist of a president, vice-presidents, two secretaries, and not less than thirty, and not more than forty, other members to be elected out of the members of the said society.

And that our said dearly beloved uncle and councillor, Adolphus Frederick, Duke of Cambridge, shall be the first president, and the other persons now being the vice-presidents, secretaries and members of the committee of management of the said society shall be the first members of the council of the said body politic and corporate, and shall continue such until the election of officers shall be made in pursuance of these presents.

And we do hereby further will, grant, and declare, that it shall be lawful for the members of the said body politic and corporate hereby established, to hold general meetings once in every year, or oftener, for the purposes hereinafter mentioned, viz., for the distribution of prizes, for receiving the report of the council, and for ratifying the election of members of the council.

That the council shall make and establish such bye-laws as they shall deem to be useful and necessary for the regulation of the said body politic and corporate, for the admission of members, for the management of the estates, goods, and business of the said body politic and corporate, and for fixing and determining the manner of electing the president, vice-presidents, and other members of the council, and other officers, and the period of their continuance in office, as shall be deemed necessary or useful for the said body politic and corporate, and such bye-laws from time to time shall or may alter, vary, or revoke, and shall or may make such new and other bye-laws as they shall think most useful and expedient, so that the same be not repugnant to these presents, or to the laws and statutes of this our realm; and shall and may also enter into any resolution, and make any regulation respecting any of the affairs and concerns of the said body politic and corporate that shall be thought necessary and proper. And we do will and declare, that the first of such general meetings as aforesaid shall be held within twelve calendar months from the date of these presents, and that the council shall make such bye-laws as aforesaid within six calendar months from the date of these presents, and shall lay the same bye-laws, or copies thereof, before the committee of our most honourable Privy Council, who shall have full power and authority, from time to time, to disallow, alter, and amend the same, as to the said committee of our Privy Council shall seem meet. And we do declare, that until the same bye-laws shall be so made, the said society shall be regulated according to the present rules and regulations relating thereto.

And we do further will and declare, that it shall be lawful to and for the said committee of our said Privy Council, from time to time, and at all times during the subsistence of this our charter, to make and ordain any bye-law and bye-laws for giving full effect to the said in part recited Act, as to the said committee shall seem fit and desirable; and with such intent and purpose from time to time revoke, alter, or amend any such bye-law and bye-laws, and the same shall be binding and conclusive upon the said body politic and corporate.

And we further will, grant, and declare, that the council of the said Society shall have the sole management of the income and funds of the said body politic and corporate, and also the entire management and superintendence of all the other affairs and concerns thereof, and the exclusive right of nominating an assistant secretary, and such other officers, attendants, and servants as they deem necessary or useful to the society, and of removing them, if they shall think fit, and shall prescribe their respective duties and salaries. And it shall be lawful for the council, or any five or more of them, to assemble and meet together when and as often as they shall think fit, and do such acts as to them, or the majority of them then present, shall appear necessary or fitting, for the objects and views of the said body politic or corporate.

Provided always, and we do declare, that the council shall render to the annual general meeting a full and particular account of all such their proceedings as aforesaid; and that it shall be lawful for every member of the said society to see and examine the accounts of the receipts and payments of the said society.

And we further will, grant, and declare, that the whole property of the said body politic and corporate shall, at all times, be vested, and we do hereby vest the same solely and absolutely in the members of the council for the time being of the said society; and that they shall have full power and authority to sell, alienate, charge, or otherwise dispose of the same as they shall think proper, but that no sale, mortgage, incumbrance, or other disposition of any messuages, lands, tenements, or hereditaments belonging to the said body politic and corporate should be made, except with the approbation and concurrence of a general meeting.

And we do further declare it to be our royal will and pleasure, that no resolution or bye-law shall, on any account or pretence whatever, be made by the said body politic and corporate, in opposition to the general scope, true intent, and meaning of this our charter, or the laws or statutes of our realm; and that if any such resolution or bye-law shall be made, the same shall be absolutely null and void to all intents, effects, constructions, and purposes whatsoever.

And we do further declare, that the services of the members of the council shall be honorary, and that it shall not be lawful for them, or any of them, to receive any pecuniary payment for their attendances or other services in or about the affairs of the said society.

And we do further declare, that all the works of art selected or given as prizes in each year, shall be exhibited in some convenient place in the metropolis in every such year, as soon as conveniently can be after the annual distribution of prizes, and that all the members of the said body politic and corporate shall have free access to the same, under such regulations as shall be from time to time made respecting the same.

Provided always, and we lastly expressly declare it to be our royal will and pleasure, that the council shall, once in every year, or oftener if thereunto required, render and deliver to the said committee of our most honourable privy council, to whom the consideration of Art-Unions shall be referred by us, a report of all the proceedings of the said society, more especially setting forth the mode adopted for selecting and distributing works of art, and a list of the works of art purchased and distributed, and the prices thereof respectively; also a detailed account of the receipts and disbursements of the said society for the year, together with a true copy of the bye-laws, rules, and regulations by which the affairs and concerns of the said body politic and corporate are, for the time being, regulated. And we do expressly declare, that whenever it shall appear to any such committee of our privy council that the said society is perverted from the purposes of the said in part recited Act of Parliament, to certify the fact to us, and thereupon it shall be lawful for us to revoke or annul this our charter: provided always, that the claim or claims, at law or in equity, of any party or parties against the said body politic or corporate, or the members thereof, shall not be prejudiced, abridged, or affected by such revoking or annulling of this our charter. In witness whereof we have caused these our letters to be made patent.

Witness ourself, at our palace at Westminster, the first day of December, in the tenth year of our reign. By writ of privy seal,

EDMUNDS.

We shall next week give some particulars of the works the council have now in progress.

PROJECTED WORKS.—Contracts have been called for by, advertisement, for the various works necessary in the erection of fire-proof warehouses and laboratories at Liverpool; a corn exchange, a chapel, catacombs, &c., at Birmingham; a tunnel and other works at Macclesfield; sewers and roads at Wavertree, &c.; also for a large quantity of cast-iron street-grates and other works in iron and wood, &c.

IMPORTANT WORKS ON THE BIRMINGHAM RAILWAY.

CAMDEN TOWN STATION.

THE additions now making at the Camden Town station, and which have excited much attention, include a passenger and luggage engine houses, with coke-sheds, tank-houses, and a construction shop for the repair of waggons, &c.

The new passenger engine-house is situated on the west side of the station,—the line at this spot being on the curve. The building is so placed that the engines can run off the main line, and through the house, and again join the line nearly in a straight line: a large piece of ground on this side of the station has been added, at a cost of 6,000*l.*, on which the building partly stands, to admit of this accommodation. The engine-house is 397 feet by 90 feet in the clear of walls; there are five doorways at each end, and five lines of rails running through the entire length of the building. The principal front is on the east side, and has three doorways at equal distances from the ends, with transverse rails running across the building. On the centre transverse line are five turn-tables. The walls are two bricks thick, faced with white Suffolk bricks; on the front are a series of buttresses (3 feet wide) and pilasters—the pilasters projecting from the wall 9 inches, the buttresses 3 feet; about 13 feet apart. The ends have a buttress between each doorway. This part of the station being made ground, holes were sunk under every buttress to a depth of 17 feet 6 inches, and filled up with concrete to within 6 feet of the surface, when cores were formed in the ground, and segmental arches turned from the top of footings, rising about 2 feet. Directly over the arches are worked four courses in cement, with three tiers of hoop iron; in each tier the hoop iron is laid over every half brick in the thickness of walls; this is continued about every 7 feet, making four courses of iron and cement bond round the whole building in the height, which is 25 feet from the line of rails to the bottom of the tie bars of roof. On account of the very great span, much care was required in designing the roof, which is composed of iron and wood. The tie bars are of wrought-iron, 4 inches by 1 inch, in three lengths, connected at the junctions directly by the queen bolts. The shoe to the queen bolts is formed of two pieces of flat iron, the same dimensions as the tie bars, and runs past the ends of the tie bars which form the lap, and is secured with keys and wedges; and also at the shoes. The queen bolts are of round wrought-iron, $1\frac{7}{8}$ inches in diameter, the king bolts $1\frac{1}{4}$ inches. From the shoe of principal to queen are two bolts, at equal distances; the one nearest the queen is the same in diameter as the king bolt, and the other is 1 inch in diameter. From the queen to the king bolt are four diagonal cast-iron braces, abutting into cast-iron shoes, which the bolts pass through, and are secured with nuts and screws; and a cast-iron bar from each of the other bolts, as before described: the shoes to the principal rafters and queen heads are of cast-iron. The principal rafters and collar beams are of fir, 14 inches by 10 inches; directly on the collar beam is a cast-iron girder, well secured to the beam by the king bolt passing through, and secured from the top. A cast-iron plate is connected to the collar beam, and is turned up, which forms the abutment for the lantern light, which is the width of one-third of the building, and is raised above the roof about 2 feet, with louvres on each side: this runs to within 34 feet of the whole length of the building, or to within 17 feet of each end. The bars to lantern light are of cast-iron, $5\frac{1}{2}$ lbs. per lineal foot, with grooves to receive rough sheets of plate glass. There is also a rod from the top of lantern light, of seven-eighths of an inch round iron bar, with three-quarter king bolt secured to ridge. There is also a continuous skylight in the centre of the bays, on each side of the roof, which runs the whole length of the building, with cast-iron bars and sheets of plate glass, as before described. The purlins are about 4 feet apart, 9 inches by 3 inches, except by the skylights, where they are 10 inches by 5 inches. The slate boarding is laid on the purlins in a line with the principals, and covered with queens slates. The gutters are formed with wood, lined with $7\frac{1}{4}$ pounds milled lead—resting on wooden

blocks, 10 inches by 8 inches, projecting 1 foot 6 inches from the face of the wall.

The buildings in connection with this, stand directly at the back of it, and run past an equal distance at each end; these are for the different departments connected with the engines, and stand 152 feet beyond the engine-house at each end; the one at the southern end is a coke shed, where the tenders will be loaded, 149 feet by 41 feet 7 inches, in the clear of walls. Next to this shed is an open yard, 116 feet by 41 feet 7 inches. The next building is a tank house, 38 feet 6 inches, by 41 feet, two stories in height, intended for the carpenters and copper smiths' shops; from the line of rails to the top of first floor is 20 feet 8 inches. The floor is formed of four inch York paving, laid on iron girders, 1 foot 6 inches deep, which are laid on three cross girders, 1 foot 9 inches deep, resting on two iron columns; from the top of floor to the under side of cross girders (which form the ceiling to this room and the floor for carring the tank) it is 14 feet 7 inches. The cross girders are 2 feet deep, and are carried on two cast-iron standards, which take their bearing on the top of the cross girders, directly over the columns. On the top of the cross girders is another floor of girders, 1 foot 9 inches deep, on which stands the tank, which occupies the whole area of building, and is 4 feet deep. The tank is formed with cast-iron plates, five-eighths of an inch thick, with flanges and diagonal braces, and is to be bolted together with five-eighths of an inch bolts, and the joints well caulked with iron cement. It is capable of holding 38,673 gallons of water. The next building, and between the two tank houses, is the fitters' and smiths' shops, 79 feet by 41 feet 3 inches, and will have eight forges. Next follows the other tank house, which is every way the same as described before, but in this building is to be fixed the stationary engine for turning the lathes, blowing the fires, and pumping the water from the artesian well, which is being sunk at the south-west corner of this building. The engines will stand directly over the well, which will be worked by four pumps, capable of throwing 500 gallons of water per minute, or 20,000 per hour. Next to this building is a large waiting room for the engine drivers and stokers; then follow the offices and store-rooms, which occupy a space of 117 feet in length. These come in a line with the north end of the P. E. H. Next is the coke store, which is 152 feet by 41 feet 7 inches, and is intended to hold 2,000 tons of coke. The whole of these buildings form one continuous front, 703 feet long.

At the north-east corner of the station, by the Hampstead-road, stands the circular engine-house, which is on the luggage side of the line, and intended for the engines and tenders used in that department. This is a circular building 160 feet in diameter in the clear of walls; the walls and elevations are precisely as described for the passenger engine-house. The roof is supported on twenty-four columns at equal distances, and forms a circle 40 feet in diameter from the centre of the building. The columns are 21 feet 9 inches high. On the top of these columns are twenty-four cast-iron girders, running in a right line between each column, and connected at each column with bolts. These girders are formed into an arch, being 2 feet 9 inches deep; the top flange is moulded, and the spandrils perforated, directly over the columns, and connected with them, are an equal number of standards, 30 feet 3 inches in height, from the top of girders; at the top they are flanged each way, to receive the purlins and principal rafters, twenty-four of which will run up to the lantern-light, and twelve will finish on the purlins, at the top of standards. The lantern-light will stand 4 feet 3 inches from the roof, and is formed at the same inclination with the roof, with wood louvres at the sides, and cast-iron sash-bars at the top, and covered with rough plate glass; at the top is a piece of cast-iron, 2 feet 6 inches in diameter, into which the tops of the sash-bars are fastened; at the apex is a large wooden ball, covered with 10 lbs. lead. The height from the line of rails to the tension-rod is 25 feet. The principal rafters drop on a cast-iron shoe, resting on stone templates. The tension-rods pass through the shoes and standards, and are secured with nuts and screws. The top part of the principals and lantern-light will be supported by cast-iron brackets, springing from the bottom of standards, and secured to the principals within 9 feet of the curb of lantern. From the line of rails to the top of ball is 69 feet 6 inches. From the line of rails to the top of concrete is 21 feet 6 inches, with a bed of concrete 2 feet 6 inches deep, making a total height from the bottom of concrete to the top of ball of 93 feet 6 inches. The foundation of this building is immensely strong, having 24 transverse walls, 2½ bricks thick. These walls run in pairs, at parallel widths, from the outside wall to within 25 feet 9 inches of the centre, which form the bed for the rails to lay on to receive the engines. These walls are connected by an invert at the bottom, and a semi-arch at the top, which forms the bottom of ash-pits. This building has only one entrance for the engines, which is at a point on the west side. In the centre is a large turn-table, 36 feet in diameter, where all the engines will run to be turned into their respective berths, which are 23, leaving the entrance clear. On each side, and within 20 feet of the entrance, are two smaller buildings, 100 feet 6 inches by 39 feet 2 inches; the one on the south side is intended for a coke shed, that on the north for waiting-rooms, offices, &c. At the south-east corner of the station is the construction shop, which is intended for the repairs of waggons, &c. This building stands on arches, which are carried on brick piers 3 feet by 2 feet 9 inches, with an invert at the bottom, on the top of footings, and a semi-arch at the top, directly under the springing. The vaults stand on an area of 43,340 square feet; they are intended to be used for stabling and stores. The construction shop commences above the arches at the north end, and is in a line with the east front. The first is for the repairs of waggons, 276 feet by 70, in the clear of walls. In the centre is a range of cast-iron columns, which support the roof, which is of the M description. The roof is formed of wrought iron and wood. The tie-rods are of 1¼ inch round iron, and the queen bolts of 1 inch, with cast-iron queen heads and shoes. The principal rafters and collar-beams are of fir, 10 in. by 5, with two purlins in each bay, 9 in. by 4; rafters, 4½ in. by 3, and close boarded; in the two centre bays are skylights between each pair of principals. At the south-east corner are the offices and stores. Adjoining, and under the same roof, which is continued, is the smith's shop, 70 feet by 69, with accommodation for ten fires, with a small stationary engine at the south-east corner for working the lathes, fires, &c.

The old Chalk Farm-lane bridge has been recently removed, and is being widened to admit of five lines of rails, with a siding on each side. The roadway will be supported by hollow girders, which will be formed of boiler plate, one-fourth of an inch thick, rivetted together, and will support the transverse cast-iron girders, and corrugated iron plates running longitudinally, and resting on the transverse girders. The buildings were commenced about the third week in June of the present year, and are nearly all ready for the roofs. Those of the passenger engine-house and construction shop are now being put on.

The whole of these buildings were designed, under Mr. Robert Stephenson, by Mr. R. B. Dockray, the company's resident engineer, and his assistant, Mr. Normanville. The contractors are Messrs. Branson and Gwyther, of Birmingham.

The tenders for the execution of the works were as follows:—

Piper	£73,619
Lee	71,000
Grissell	69,900
Baker	69,775
Haward and Nixon	69,598
Nicholson	67,894
W. Cubitt	66,970
Grimsdell	65,490
Branson and Gwyther	61,715

Shewing a difference between the highest and lowest of 11,904*l.* Mr. Robert Netherway is the clerk of the works.

ZINC TRADE.—The smelting and manufacture of zinc is becoming an important trade in Belgium. During the last ten years the progress made in this branch of manufacture has been extraordinary. The borders of the river Meuse produce large quantities of the ore.

ROYAL INSTITUTE OF ARCHITECTS.

ON Monday evening last, Mr. S. Angell, vice-president, in the chair, several interesting donations were received, including a volume of sketches by Pugin and others, chiefly made for the "Public Buildings of London;" and a reduced bust in ivory, after Chantrey, of the late Thomas Saunders. In allusion to the latter, Professor Donaldson referred to Mr. Saunders's remarks on sound in connection with the construction of theatres, and other of his works. Saunders was the architect of the Townley Gallery, in the British Museum, which, curiously enough, he said, had been put up for sale that day, and was to be removed to make room for a fresh building; whether this would be better than the former might admit of argument.

Mr. Donaldson then presented some parts of the work, "Ancient and Modern Architecture, by various Authors" (*Monumens Anciens et Modernes* &c.), and said he could not avoid taking that opportunity to speak of a recent article on architecture in the *Westminster Review*, the object of which was to cast a reproach upon the profession most unjustly. The writer of it had shewn his ignorance or his want of candour when complaining of the want of proper books, by not quoting the work he, Mr. Donaldson, had then presented, or Batissier's "*Histoire de l'Art Monumental*," which gave a perfect history of architecture. The reviewer did not know the literature of architecture, or he would not have been so bold as to make the assertions he did. He thought it due to the profession to exonerate it from charges prompted by questionable intentions. In that same article it was asserted, that the Institute had refused a most liberal offer made by Mr. Weale, to engrave and publish the works of the members if they would furnish the drawings. In the first place this sounded more liberal than it really was;—the preparation of drawings fit for engraving was an expensive thing, and in the next place, the offer never was made. The writer of the article was understood to be the writer of the notices in the "Companion to the Almanac," of which the article in the *Westminster* professed to be a review. He also wrote under different signatures in the *Engineers' Journal*, and other papers, quoting himself, and spreading the same statements in different quarters, so as to make the public believe there were many persons of the same opinion, while in reality there was but one. It was high time such a system was exposed.

Mr. Bellamy said: As a member of the council at the time when, as was said, this offer was made, he wished to confirm Mr. Donaldson's remark, that the statement was untrue.

Mr. Fowler observed: Without desiring to weaken Mr. Donaldson's justification of the profession, it was much to be regretted that so few works appeared. The books mentioned, it must be remembered, were not English.

Mr. Donaldson said: He considered the profession as of all countries. As regarded the publication of their buildings, some English architects were too modest to do so, and others were too busy.

The discussion excited considerable interest.

Mr. Burn then laid on the table specimens of an important work on "The Baronial and Ecclesiastical Antiquities of Scotland," which he had undertaken in conjunction with Mr. R. W. Billings, and of which the first number would appear in April.

The Chairman bore testimony to the merits of Mr. Billings as a draughtsman; and we have great pleasure in adding our evidence to his.

The Hon. Secretary read a description of the mode adopted by Mr. J. Bull Gardiner to warm the Spanish and Portuguese Jews' Synagogue, in Bevis Marks, London, in 1815. And Mr. I'Anson followed, with an account of the Polmaise system of heating, adopted successfully in greenhouses, at small cost. To heat one, 28 feet long and 17 feet 6 in. wide, to which he referred, cost 24*l.*; and the quantity of fuel consumed was very small. By this arrangement the air is sucked down (so to speak) from the floor above, to the heating-chamber; and then, when warmed, allowed to ascend into the house again. The committee of a church, in the restoration of which he was engaged, wished to apply it there; but he was not prepared himself to adopt it.

Mr. David Mocatta then read a paper descriptive of a distillery, and its appurtenances, erected from his designs.

Mr. Mocatta said, that having felt how important it was to acquire knowledge on every point connected with professional practice, and the difficulties which frequently attended the acquisition, he was led to believe he was fulfilling one of the duties which devolved on him, as a member of this Institute, in contributing his mite to the general stock of information. He then described the various points requiring attention,—the furnace flues for stills, position of the worm-tub, ventilation, and general arrangement; and urged that architects should become acquainted with the working and details of the several manufactures of the country, and establish the opinion that they are the proper persons to be employed in the erection of fitting buildings for their purposes. This, it might be inferred, would tend to improve the character of what are now common-place brick and mortar edifices.

Mr. Horne made some general remarks on the consumption of smoke, in connection with Mr. Mocatta's paper. Relative to the system described by Mr. I'Anson, he thought it would be most dangerous for a church, as they would be made to breathe over again the worst part of vitiated air—the carbonic acid gas, which would be found on the floor. Heat without ventilation was bad.

Mr. Fowler, in urging the importance of consuming smoke, alluded to some chimneys at Holloway, which were formed larger at the top than the bottom,—like an inverted cone.

Mr. Donaldson complimented Mr. Mocatta on his paper, and said he was much pleased to see so practical a view of the subject taken by one who had already proved himself an artist. An architect who was rightly educated need never fear grappling with special or new subjects; he would find his knowledge of principles, and his general information, would carry him successfully through.

After a conversation on Moffat's drain-tile, the meeting was adjourned.

WHY REMOVE WESTMINSTER BRIDGE?

Sir,—The state of Westminster-bridge being such as to require another structure in its stead, the position of the new bridge becomes a subject of the utmost importance, not only to the public in general as passengers on the highway, but to others in particular, whose interests are of a fixed and local nature. The remarks quoted by you last week, and those which have appeared in The Builder, and other periodicals, as to the injury which must arise to existing interests, by the removal of the bridge far from its present site, seem just, and full of a proper feeling for the situation of the inhabitants on the Surrey side of the present bridge, who will most probably receive no equivalent for the very great injury which they must suffer, by the withdrawal of an immense traffic from the line of their shops and houses; and to the owners and tenants of the properties, many of whom may have paid large considerations in their purchases or leases, the loss will be all but ruinous in most cases.

The dilapidated state of the present bridge, how occasioned it is not my intention to inquire into (although one need not travel far for a cause), is doubtless a strong case why another should be built, rather than an attempt be made to repair it. But its too close neighbourhood to the new Houses of Parliament, has had much to do with the wish to remove the site so much to the northward; and without doubt the bridge and the Houses are too near each other, and one must give way; and upon the old maxim of the weakest going to the wall, it is clear that the poor old bridge must yield to its formidable, though younger neighbour.

It appears to me that, by a very slight removal to the north of the present bridge, a new site may be obtained which would reconcile many difficulties, which would not inflict injury and injustice on innocent parties, and which would still afford to the public that accommodation to which they have been accustomed. There is a very short street leading out of Parliament-street, called Derby-street, having on one side only two houses, and on the other side three houses; consequently, much money cannot be required to be expended in forming the approach. Cannon-street crosses Derby-street at right angles, but opposite the latter street is only a wharf, extending to the river.

I venture to suggest that a new bridge could be formed at this point, and to terminate on the Surrey side, very nearly, if not quite, where the present bridge ends, although, in fact, a clearance of ground a little to the northward would form a better line than the present. My object in selecting a line which would require but a small outlay for the approaches (always a most expensive item in such matters) is, besides the reasons already stated, that a large sum may be devoted to a purpose which is highly desirable, namely, to purchase and remove the entire block of houses in Bridge-street, forming the north side of New Palace Yard: thus a fine area would be obtained for the entrance to the new Houses of Parliament, which would also be seen to more advantage from the new bridge than can be expected to be the case from other positions. But to make a new bridge from the top of Whitehall, although it may save a trifling distance to passengers from Pall Mall, will be a serious inconvenience to persons proceeding from Pimlico into Surrey, and must of necessity require an enormous outlay for approaches, not only on the Westminster, but on the Surrey side of the river. Other and grave objections might be urged against the removal of the bridge far from its present site, and although it is one thing to make a new bridge where the increasing populousness of a locality on either side of a river seems to demand such a boon, it is quite another thing to deprive an established neighbourhood of the means of transit enjoyed by them for centuries, and which privilege they have done nothing to forfeit.

It has been long since proposed to carry a bridge across the river at Lambeth, where the horse ferry exists. This position nearly divides the distance equally between the bridges at Vauxhall and Westminster: and another bridge is talked of from Essex-street, in the Strand, crossing the Thames exactly half way between Waterloo and Blackfriars bridges; nor will all these viaducts, new and old, be too many for the vast and increasing traffic in our streets. But it has been well observed, either in The Builder or in some other periodical, that the greatest relief to the pressure of the traffic would be by the abolition of the tolls on the bridges (of course by compensation); for actually at this moment there are only two free bridges open from Westminster to Whitechapel, the entire length of London. It must cease to be a wonder, therefore, that our streets are so crowded, and the communication so interrupted, especially when we take into account the state of blockade into which the leading thoroughfares are converted when under repair.—George Russell French.

18, Sussex-gardens, 12th December, 1846.

*** A public meeting to oppose the removal of the bridge has been held (Mr. Hawes, M.P., in the chair), when a series of resolutions to that effect were carried unanimously. Mr. Grissell stated, that he believed Mr. Barry was in favour of the present site.

NO ROYAL ROAD FOR PAINTERS.

A Captain Berkley, of Exeter, advertised that he had made a valuable discovery in the art of painting, and offered to teach it for 300*l.*, and so enable any one in half a year to earn a fortune! A gentleman named Eamondson, sent his son to him, paid 150*l.*, and gave a bill for 150*l.* more. The son soon found that the thing was useless, and left his instructor. The bill was not taken up, and an action was brought by Captain Berkley in consequence, which was decided last week in the Court of Queen's Bench. Artists shewed that what the pupil had learnt was valueless, and must be unlearnt; and that by the means professed, though a showy painting to please the vulgar might be produced, a good picture could not. The jury immediately gave a verdict for the defendant.

Bricks.—A parcel of 30,000 has arrived by a vessel from Hamburgh, and another of 40,000 by the Catalina, from Antwerp, both cargoes being destined for re-exportation.—*Liverpool Advertiser.*

FREEMASONS OF THE CHURCH.

Dec. 8.—Mr. French in the chair. Miss Mackenzie presented the following architectural flowers: Rose of Jericho, *manus Mariæ*, Anastatica *Hiero chuntina*, which was first heard of in England in 1597. A single flower, which Miss Mackenzie has had for five years (grown in Palestine), has never failed, on being held in water for half a minute, to expand itself into a star. The Latin monks call it *manus Mariæ*, in which they are supported by the Arabs. It was said to blossom at Christmas eve, to salute the birth of the Redeemer, and pay homage to his resurrection by remaining fully expanded till Easter, and that its revival from death was a type thereof!

Mr. Gauntlett, Mus. Doc., was elected professor of church music; Mr. Dobson and Mr. L. Blackburne were elected fellows; and Mr. Chambers and Mr. Thos. Clarke, associates.

Mr. Rogers exhibited one of the richly carved canopies from the great chimney-piece at Nonesuch Palace, said to have been executed from the designs of Hans Holbein.

Mr. E. B. Price read a paper on grotesque ecclesiastical sculptures; the example exhibited was by the kindness of Mr. Walter Hawkins, F.S.A. Mr. Price observed, that similar grotesque and satirical designs still exist in Westminster Abbey, such as the devil bearing away a monk upon his shoulders, and another in which a woman is seen beating a monk with her distaff. Had such burlesques upon the priesthood, of which so many examples might be adduced, originated with laymen, they would in themselves present nothing very remarkable, but that they should have existed in our cathedrals and churches has often been matter of surprise. The most rational conjecture, he thought, was, that they arose out of that spirit of hostility which prevailed so extensively between the regular clergy and the monks. They were mostly of a period when that hostility was at its height, and which shortly preceded the Reformation, a measure which happily put an end to such a state of warfare.

A paper was then read by Mr. A. J. Stothard, accompanied by drawings, shewing in what manner the plinth of the statue of the Duke of Wellington, at Hyde-park-corner, might be modified so as to accord with the arch upon which it stands with more propriety. A discussion took place upon the subject, but the majority of the members present were opposed to any modification, and desired its removal to a more eligible pedestal.

It being the anniversary of the Institution, the chairman delivered an address, reviewing the progress made in the several sciences upon which architecture depended, during the past year. The best thanks were voted by the society to the vice-presidents; the treasurer; Mr. Griffith, the honorary secretary, and the other officers, for their zealous exertions, and they were re-elected for the year ensuing.

THE PUBLIC HEALTH.

The "Health of *London* Association"—whose main object is, first, "to instruct the people as to the evils which result from the present defective sewerage, drainage, ventilation, street-cleansing, and supply of water;—from interment in towns, and from other sources of injury to public health: and to show the beneficial influences which the removal of these evils would certainly exert on their physical and moral condition;" and

Secondly.—"To diffuse information as to the most efficient and economic means of carrying out the necessary remedial measures;"—have issued a series of queries with the view of obtaining a large amount of information, to be afterwards digested and issued in the shape of a report. They say truly in the circular accompanying the queries,—"An untimely death is the lot of nearly a hundred thousand of our population annually,—disease and sickness prostrate the strength and energies, and destroy the means of hundreds of thousands more,—pauperism is produced on an alarming scale,—vice and crime (entailing the expense of their suppression) are generated and fostered by,—and hereditary disease, and an impaired physical condition have become common afflictions of our people, from causes which are

easily remediable." It is within the power of the people themselves, by a little energy, to relieve themselves from these prolific sources of misery. Every effort to make them aware of this, and rouse them to the effort, shall have our cordial support and co-operation. We reiterate the axiom:—"We can be useful no longer than we are well."

REMARKS ON NORMAN SARACENIC ARCHITECTURE IN THE ISLAND OF SICILY.*

Having cursorily reviewed the history of the island of Sicily during its occupation by the several powers who successively held sway in that country, and more particularly with reference to the Saracens and Normans, we proceed to consider the architecture, and the features peculiar to it, or from records of edifices once existing, of which accounts are extant, as collected from edifices still remaining. The styles which preceded that adopted by the Normans are only to be noticed as introductory to our examination of this more interesting and important variety of the art, although a more detailed account of the architecture of their predecessors than is compatible with the nature and design of this paper, would fully repay the attention either of the student or antiquarian.

For the sake of perspicuity, we divide that portion of the architectural history of the Island of Sicily, which at present we propose to consider,—namely, from the commencement of the middle ages to the time of the Normans,—into three periods:

1. The Imperial.
2. The Saracenic.
3. The Norman.

1. With reference to the art during the rule of the emperors, no research can be made with any certainty prior to the middle of the sixth century. A manuscript, written by Inveges, who lived A.D. 1648, preserved in the works of Mongitore, an Italian writer of eminence, renders an account, both curious and interesting, of a certain ancient church, which afforded an example of the state of ecclesiastical architecture during the period in question. A complete plan and description of this edifice may be found in a publication on modern Sicilian architecture, issued by two very able authors, Messrs. Hittorf and Zanth. This unique monument of antiquity was destroyed in the seventeenth century.

The church, to which we refer, was erected by Belisarius, about A.D. 535, and dedicated to Santa Maria della Pinta. It was formed of a number of stone columns, connected by semicircular arches, in the debased Roman style, and arranged in the form of the letter T. This form, according to tradition, was the original model of the cross. A roof covered the whole, but the building was uninclosed by external walls, and had the appearance of a finished construction of frame-work, open to the weather on all sides. The church consisted of a nave, with aisles and transepts. In rear of the transepts was attached a small building, divided into three compartments, which were devoted to the use of the chaplain and sacristans, and subsequently the centre compartment was converted into an apsis, as we now understand it. Chancel originally it had none. A small garden or cemetery surrounded the building, and the whole was inclosed by a low wall, forming a right-angled parallelogram.

This is the earliest example of mediæval art in Sicily, and it is evident that the designer took for his model an ancient basilica. It is also more than probable that some of the materials of existing buildings, classic in their origin, were employed in the erection of this new edifice, a conclusion which seems justified by the style adopted, resembling, as we have noticed, the debased Roman art.

We find at this day, in Sicily, no examples of architecture peculiar to the three succeeding centuries. But a reference to specimens in the Italian domains enables us to form a probable estimate of the condition of the art in the island. We have no reason to suppose that the style in the island differed from that employed on the continent, both territories having been uninterruptedly occupied for a long season by the same people, until in Sicily they gave way to the superior force of the Saracens. Records, unfortunately, do not exist, from which we might gain any certain insight into the character of the buildings of this period.

2. The Saracens having established themselves firmly for some time in Sicily, erected for their own use mosques, palaces and houses, according to their own fashion, similar in most respects to edifices still seen in Spain, in Africa, in Persia, Syria, and India. In these buildings the pointed and horseshoe arch was very generally adopted. The dome and minaret, the honeycomb, mosaic, and other elaborate features and ornaments abound. The monuments which they found in the debased Roman style, erected by their predecessors, opened a temptation to the turbaned infidels, which even believers have not been able to resist. With materials ready at hand,—formed, it is true, after a fashion somewhat different from their own,—with no respect for antiquity, or community of feeling induced by a similarity in faith, or more ordinary associations,—with a religion, indeed, sternly opposed to that professed by the people whose extermination they came resolutely bent to accomplish,—the new settlers hesitated not to employ what they found, in erecting many of their buildings. The manifest discrepancies between the Roman workmanship and their own, served to exercise their judgment and skill. We consider their efforts to have been most successful, though we reflect with deep sorrow on their demolition of monuments, by the side of which we would rather have viewed their own rising. But, by this amalgamation of parts, they gave an entirely new architectural character to their buildings; so that in the edifices of this period, we find a style differing altogether from any other which had elsewhere appeared.

Although few examples of importance are now to be found in Sicily of the Saracenic period, traces of the handicraft of this people are still to be seen in every direction. Here a window or a door, and there some other fragment of a building, exhibits the features and principles peculiar to the Musselmans. The palaces of la Ziza, la Cuba, and la Favara, at Palermo, with portions of the Royal Palace and mosque of la Ziza, may be considered the most interesting specimens which remain. The scale on which these edifices were erected affords us a just notion of the power possessed by the Saracens, and the influence which these people exercised over the Græco-Sicilians. In design, they appear to have followed an oriental palace; in ornament, to have employed details peculiar to Arabian houses.

3. As the Saracens had varied their own style by the appropriation of Roman materials, so in just retribution for such sacrilege, the Normans, during their occupation of Sicily, modified their architecture with the remains of Saracenic art.

"In Sicily," says the late Mr. Gally Knight, "and only in Sicily, the Greeks, the Saracens, and the Normans were united; and by their fortuitous conjunction the Northern, the Classic, and the Oriental styles were blended together; the Romanesque, the Greek, and the Saracenic: nothing of the sort is to be seen any where else."

The completion of the conquest of Sicily by the Normans cannot be considered to have been effected previously to A.D. 1071. From this time they began to enjoy undisturbed possession of their newly acquired territory. But the rapid changes which had occurred in the island, the quick succession of one power on another, having each their peculiar language, laws, and customs, reduced the Sicilian population to a condition the most singular and remarkable. During the period we are now to examine, four languages were common in Sicily. The inhabitants were composed of the settlers under the Hellenic rule, of Orientals, and Northmen. Greek and Latin were the distinguishing tongues of the older occupants; Arabic and Norman-French having been successively introduced by the subsequent possessors. Laws were published and deeds executed in three different languages; and the state prospered, notwithstanding this singular confusion!

> "Tum demum crassâ magnum farragine corpus
> Crescere jam domitis sinito."

Christian churches arose, courts of justice and palaces were built, the mural inscriptions of which, whether sentences from the Scriptures or not, being in the Cuphic character. On the coinage the inscriptions were chiefly Arabic; while on tablets, paintings, and ordinary writing, the most fantastic license seems to have been used. Of this Babel-like confusion of language, many strange specimens are extant. Among these we shall merely mention one, in which the far-famed Norman King, Roger, is thus immortalized:—

Ρογεριος Ρηξ·

the Latin and Greek words and characters being used indiscriminately.

The larger part of the population consisted of the Sicilian Greeks; and of this class seems to have been chiefly the architects, sculptors, and artificers in general, whom the Arabians first, and afterwards the Normans, employed. This opinion is strongly confirmed by the appearance of Greek design in the works of importance; and it is generally admitted, that during the tenth and eleventh centuries, as was likely to be the case, the meagre remains of classical art belong exclusively to the Greeks. From this circumstance, in the earlier buildings of the Normans in Sicily, we may look for less purity of style than in those erected at a later period. The native artists, whom, with the greatest reason, we suppose to have been employed, imbibed, under the rule of the Saracens, strong predilections, which first corrupted, and eventually effaced, their decided attachment to the antique. They continued to use the ornaments to which they had been last accustomed, introducing them into such parts of the buildings as would admit of decoration.

Time, experience, and chiefly association with a people of a higher genius and more noble character than the Saracens, produced in the Sicilian architects a more refined and elevated taste. The main features in their buildings, especially in ecclesiastical structures, gradually became developed; the ornaments, modified and chastened. One improvement rapidly induced another; and every success gave encouragement to fresh efforts. In propriety of design, in a just application of ornament, and above all, in a true apprehension of the principles of decoration, they soon obtained great excellence: and at length their edifices began to assume that lofty elevation and sublimity of character peculiar to mediæval architecture.

In Nos. 190 and 198 of this journal, we placed before our readers two engravings of Norman doorways; in each of which, though they are late examples, are exhibited marks of the peculiar style, which characterizes the Norman architecture of Sicily. For earlier specimens of the pointed arch, as employed in the island, we may refer our readers to the illustrations given in the work of the late Mr. Gally Knight, to which we have already alluded. We would especially draw attention to the engravings of the church of San Giovanni dei Leprosi, erected about A.D. 1072; as well as those of San Giovanni degli Eremiti, of the Capella Palatina, and the cathedral of Chefalu, built by Roger the Second about 1132. These are all built in the pointed style, and are undoubtedly of an earlier date than any building of that character to be found in this country or in France.

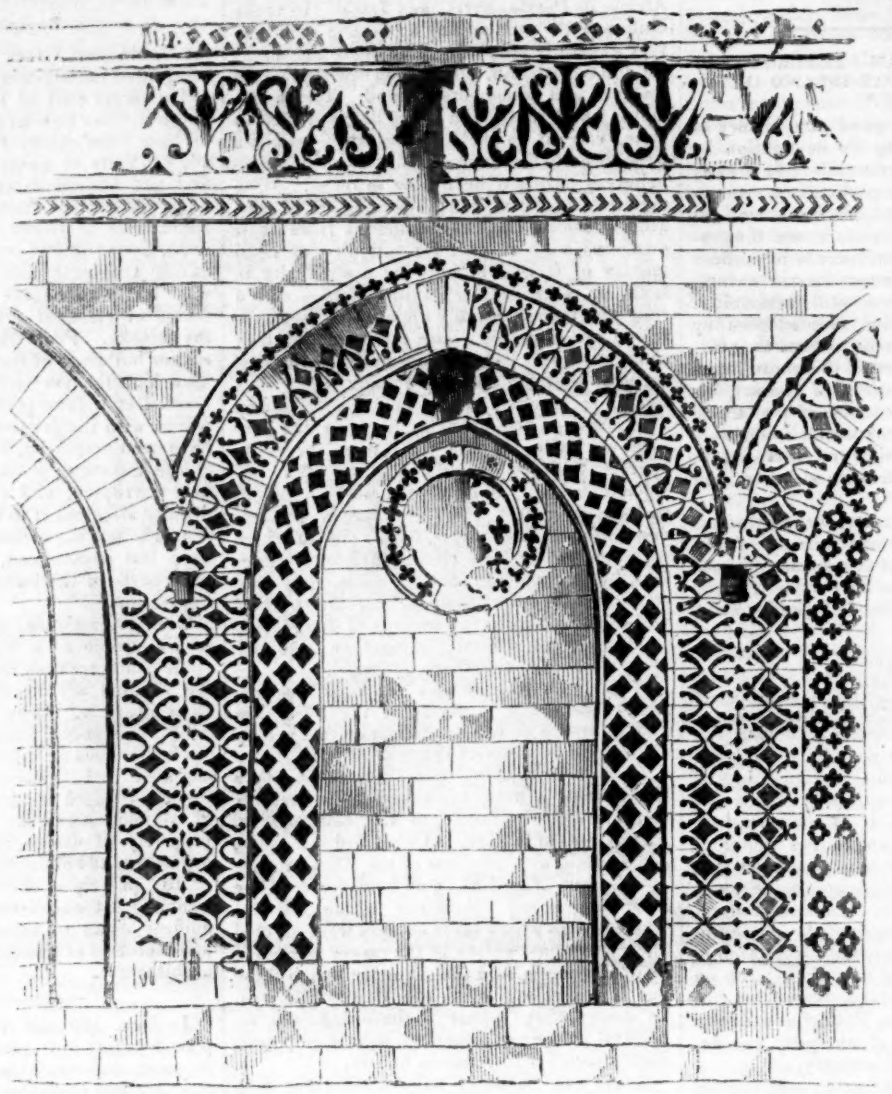
In the first example we have given, we may notice the same peculiarities of feature, which the reader will observe in the specimens given in Mr. Gally Knight's work. The doorway, which we are surprised has never before been introduced to public notice,—like the rest of the examples we have given in The Builder—is taken from the interior court of the Palazzo Monteleone, a princely fortress, erected about A.D. 1150, in the village of Favara, about seven miles from Girgenti. The principal features in the head differ materially from those found in buildings erected either in France or England about the same time. A thorough knowledge of the construction of the pointed arch is indicated by its frequent and even curious repetition. There is no appearance of the lanceolate arch, which was the first employed by our neighbours in France, and, subsequently, by ourselves.

The lintel and jambs are built of white marble, and are, evidently, remnants of some classical edifice. A chariot race is sculptured on the former; on the latter have been subsequently introduced various Christian symbols, some of which are difficult of interpretation. The hood moulding, of which a portion

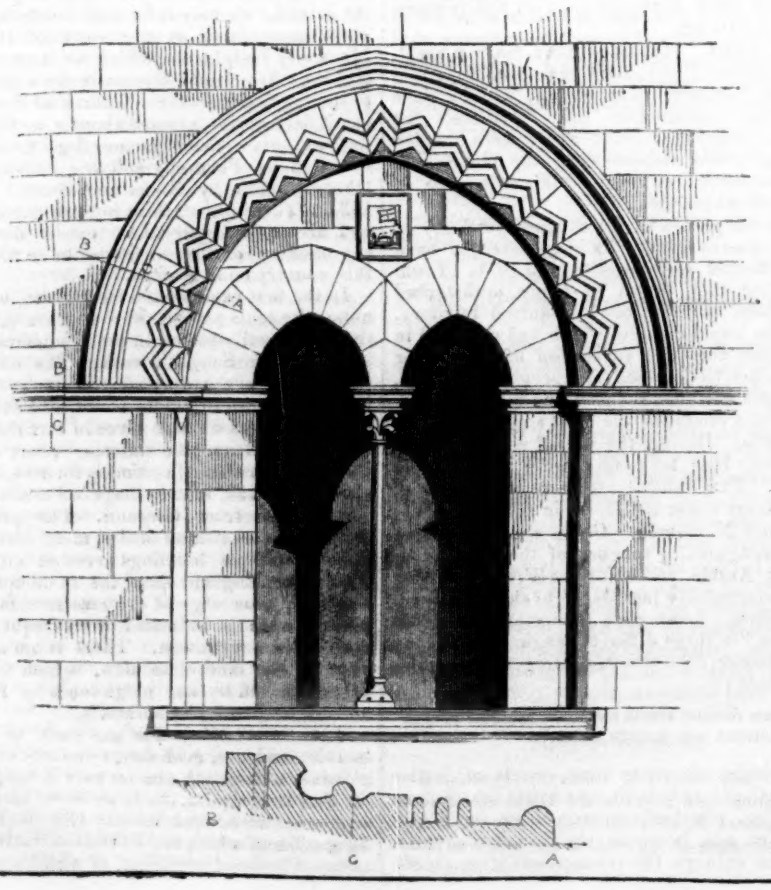
* See p. 538, *ante*.

FROM PALERMO CATHEDRAL.

CLERESTORY WINDOW.



WINDOW AT GIRGENTI.



only is given in the plate, is Saracenic in design, but executed by a Greek workman.

In the portal of the church of L'Abbadia at Girgenti (miscalled, as was afterwards pointed out), we observe a similar curve in the arch, but a much more simple design. It was built previous to A.D. 1170, and is an exceedingly pure and elegant specimen, exhibiting great breadth and firmness. The arch is composed of three sinkings, each of which has the torus, hollow, and the astragal moulding. The hood resembles that in the preceding example, with the exception of being somewhat flatter, and terminating in a scroll. We may observe generally, that there are key-stones in all the arches of the Normans in Sicily. It will be noticed that an improved construction was adopted in this doorway, the lintel and tympanum being abolished. The mouldings of the impost are debased Roman. The capitals are foliated, similar to those which are ordinarily designated early English. On the angle of the pier next the exterior columns, a quatrefoil ornament is sculptured.

In the present number, the first engraving exhibits one of the clerestory windows, taken from the south side of the Cathedral of Palermo, which, with the crypt and a portion of the east end, is all that remains of the original structure. The rest of this magnificent edifice was erected during the fourteenth and three subsequent centuries. The oldest part was built in A.D. 1169, by Walter Offamilco, an Englishman, who was made Archbishop of Palermo, and the cathedral was consecrated in 1185. We desire particularly to notice the great richness of effect exhibited in this example. It is produced by an arrangement of numerous mosaic patterns, inserted on the face of the arch, the hood moulding and the

IRONWORK, ABBEY DORE, HEREFORDSHIRE.

upper string courses. The patterns are formed of black or grey lava, set in the stone with white mortar, the joints adding considerably to the appearance, and serving to delineate with distinctness the outline of each design. The greatest variety has been adopted, and no two windows are alike.

When the elegant arts were driven from Italy, mosaic work, painting, and sculpture, were preserved by the Byzantine Greeks. It is difficult to determine at the present time whether the Arabians, when they entered Sicily, found the mosaic art still in use among the inhabitants of the island, or whether they themselves, having learned the art in their invasion of Constantinople, introduced it to the Sicilians. But it is certain, that the natives of Sicily, and the Moors, during their occupation of the island, used, as in Spain, this kind of work a long time previous to the Norman invasion; and the Normans, who have employed mosaics so profusely in Sicily, are manifestly indebted to the artists of the island for this kind of intricate, but beautiful decoration.

The frequent use of the lava as an ornament in different parts of the buildings, illustrates the taste and readiness of the architects of the country, who have employed, with the greatest effect, the common materials which the volcanic countries supplied.

The next example given is the drawing of a window in the house of Cavaliere Panatieri, near the town of Girgenti, on the road to the wonderful ruins of ancient Agrigentum, of the citizens of which, Empedocles said, that "they lived as if they were to die to-morrow, but built as if they were to live for ever." The date of our example is not precisely known, but judging from similar buildings, the age of which is positively ascertained, we may place it about A.D. 1180. The design is simple and bold, and executed with great care. We should presume from the sculptured effigy of the lamb bearing the Templar's banner, that the edifice belonged to a Crusader.

We cannot fail to notice the decidedly Greek profile given to the mouldings. This is particularly the case in the beak-headed moulding, which presents no modification. There are several other features of Greek design. It should seem to be incontestable that the architect of this structure was influenced by the venerable buildings which surrounded him; but in carrying out his design, and using with freedom various characteristics of other styles, he has most ingeniously avoided all incongruity.

In the concluding paper, we shall give one of the windows at the Palazzo Corvaio, at Taormina, a specimen of the same age as the last. WALTER L. B. GRANVILLE.

IRONWORK AT ABBEY DORE, HEREFORDSHIRE.

THIS beautiful example of ancient workmanship is upon the south door of the chancel at Abbey Dore, and may be dated to the period of its completion in the 13th century. The abbey takes its name from its situation on the river Dore in a luxuriant valley, "the golden valley," as it was termed in olden time; the name being derived from the French *d'or*. The abbey was founded for Cistercian monks, by Robert de Ewyas, the youngest son of Harold, lord of Ewyas, in the reign of King Stephen, to the honour of the Virgin Mary. Its possessions were increased by many valuable donations, and King John gave to it all the land between the river of Dore and the rivulet of Trivelbrook. The monks thus acquired extensive possessions, and became very affluent; they began the erection of a magnificent church, which was completed in a most elegant manner in the pointed style. It continued to flourish until the time of the dissolution of monasteries, when its site and lands were granted (31 Hen. 8) to John Scudamore, Esq., of Holm-Lacey. The chapter-house, cloisters, and other buildings belonging to the abbey, were pulled down, and the materials sold, soon after its suppression, together with part of the church; but enough of the latter is remaining to show its original construction. John Viscount Scudamore obtained a license from Charles the First to rebuild the church, and endow it with all the appropriated tithes of Dore parish. But the intentions of this nobleman were not entirely carried out; it only underwent considerable repairs, and was re-consecrated in March, 1634, by Theophilus Field, Bishop of St. David. It now consists of the chancel and transept of the original building, with its massive tower; the nave may be traced, and near to the present church some of the pillars and arches are still standing. The chancel is spacious and magnificent, the variety and beauty of its capitals a striking feature; it is 84 feet in length, 32 in breadth, and 46 in height. The communion-table is a remarkable slab of stone, 12 feet long and 4 feet broad, resting upon three elegant pillars. The church also contains some antique altar-tombs and monumental effigies, similar to those in the Temple Church, London. F. W. F.

AWARDS OF OFFICIAL REFEREES.

RUINOUS BUILDINGS.

With regard to certain two houses, Nos. 25 and 26, Rathbone-place, St Pancras, the district surveyor having, in pursuance of an authority in that behalf, surveyed the said houses, certified with respect thereto, to the said official referees,

"That both the buildings or houses referred to are in such a ruinous state as to be dangerous to passengers;"

That for the safety of passengers it is necessary immediately to shore up both of the said buildings, and to hoard in the fronts of the same;

That the works required consist of the total pulling down and rebuilding of the party-wall between the houses aforesaid, from the level of the second story (or ground floor) to the top, together with all the stacks of chimneys attached to the same;

That the fronts should be repaired, made good in cement, and otherwise secured to the new work, and

That unless these works respectively are forthwith executed in the most careful and workmanlike manner, I do hereby certify that the said buildings ought to be wholly pulled down."

Messrs. Paine and Hoskins, acting on behalf of the owner of the first-mentioned house, appealed against the said certificate on the following grounds, that is to say,

"That the said house, No. 25, is not in a ruinous state, and is not in any way affected by the condition of the said party wall, and would not require to be pulled down in case the said party-wall be not pulled down and rebuilt;

That the said party wall requires to be wholly pulled down and rebuilt from the foundation thereof; and

That although the front of the said house, No. 25, should be secured to the new work, yet the front thereof does not require to be repaired.

And we do hereby request the said official referees forthwith to survey the said houses, and to inquire into the matters of this our appeal, and to make such award and directions in the matter as to them may seem fitting; and we do hereby further request the said official referees, should it be competent to them to include the matter in their award, to inquire into and determine whether the said wall has not been rendered ruinous by the cutting away of parts thereof by the owner or occupier of the said house, No. 26."

When the referees made their survey, the owner of the house adjoining, northwards, concurred in referring to the official referees the matter mentioned in the last paragraph of the requisition, and generally the proportion of the expenses to be borne by the said parties; and afterwards the official referees proceeded to survey the premises, as to the matter of appeal; the further consideration of the other matters being adjourned to Wednesday, the 2nd day of December, 1846, when the parties were to be heard thereon.

The award, reserving all other matters, was:—"as to the said matters of appeal against the said certificate, that the house in question, that is to say, the Wheatsheaf Public-house, No. 25, Rathbone-place, is in a ruinous condition, and that it is affected by the condition of the party-wall between the house No. 25, and the house next adjoining thereto, on the north side thereof. And, further, that all that portion of the building in question which stands over the passage, or gateway, between the said two buildings, ought to be pulled down. But we are of opinion, that if the remaining portion of the building in question, south of the said passage, or gateway, be properly shored up throughout the full height of the building, from the floor of the basement story, southwards, and clear of the wall and partition between the shop and bar and the said passage, or gateway; and if the then remaining portions of the front and back wall be securely tied together with sufficient irons, that it will not be necessary to pull down such remaining portion of the said house, No. 25, Rathbone-place."

In consequence of the district-surveyor's certificate, Mr. Wagstaff, builder, on the part of the owner of No. 24, sent a requisition to the referees, calling on them to confirm or modify the said certificate, and authorise him to proceed with the works, as though the said certificate had been made under the 24th section of the Act; and to give such directions as might enable him to claim, and be repaid, such expenses as might have been incurred by him for the adjoining owner.

The award of the referees was,—"That it is not competent for the official referees to make such an award as by the 24th section of the Metropolitan Buildings Act they are authorized to make, unless the previous proceedings, prescribed by the said section, have been taken; that is to say, the notice to the adjoining owner, the official referees, and the district-surveyor; the survey by the district-surveyor, the certificate by the district-surveyor, and other the proceedings thereon; that the certificate made by the district-surveyor, under the 40th section, does not include various matters which are, or may be, comprised in a certificate made by him under the said 24th section." Expenses to be paid by Mr. Wagstaff.

After another hearing, to determine matters left open in the first award, also to settle by whom, and in what proportion, the works in question were to be paid for, the referees awarded, that the party-wall had not been damaged by the acts of the said Thomas Moore in such manner as to cause its ruinous state; but that the proximate cause was the decay of the story-post at the north side of the gateway, between the two houses, and the general decay of the wall at or about the level of the roadway through from Rathbone-place to a mews behind, occasioned by the action of urine upon the brickwork, to which the wall in that part appeared to have been long and constantly exposed; and further, that the injury received by the wall from such source was not attributable to the said Thomas William Bye, inasmuch as provision appeared to have been made by him for the convenience of his customers, by urinals on the south side of the gateway. They further awarded, that the expenses of shoring up, hoarding, and pulling down, should be borne in equal moieties by such owners; and that the expenses of building the wall should be borne by the respective owners, according to the rates of the houses parted thereby. The chimney-breast, or breasts, to be paid for by those by whom the same shall be required or used, "subject, nevertheless, as to all such expenses, to the right of either party to appeal, as provided in the 47th section of the first-mentioned Act."

"And as to the requisite arch or floor over the gateway, between the two houses in question, we do hereby determine and award, that the said arch or floor, with its abutments or supports, on the south side of the said gateway, be formed and built conformably with the rule headed, "Buildings over the public way," in schedule D, part 5, of the first-mentioned Metropolitan Buildings Act: and as to the expenses of pulling down the existing floor, and building the arch or floor above-mentioned, we do hereby further award, that the same be wholly borne and paid by the owner of the said house, No. 25; that is to say, by the said Thomas William Bye." And they then order, that the works be proceeded with immediately; and in the event of Moore not proceeding with all due diligence, they authorise and direct Bye to do so.

Expenses to be paid by the applicants on the part of Mr. Bye.

NORWICH CATHEDRAL.

At a meeting of the Society of Antiquaries, on the 10th inst., when a series of drawings illustrative of Norwich Cathedral, made by Mr. J. A. Repton, and bought by the society several years ago, were exhibited, a letter was read from that gentleman relative to the present state of the cathedral. From this it appears that the old timber roof has been restored, also the carved stalls, and an oak door to the rood loft. The Pelican reading desk, long since thrown by, has been brought back. Externally, stone spires have been added to the turrets at the west end. A new stone cross, put up over the west window, Mr. Repton objected to as being, like much of the modern Gothic, too *pretty*. It is desirable to draw attention to the fact that earth has accumulated on the north side of the nave, to a height of five feet above the pavement of the church, and that the Norman arcade against the walls is much injured in consequence.

FRANCE.

Improvements and Embellishments of Paris.—Great excavations and demolitions are going on in the vicinity of the Place St. Sulpice, at the angle of Rue Mezière and du Pot-de-Fer. The houses which are to be erected in this part of the square, will be of a uniform plan with those large structures, darkened by time, which form the angle of the square towards Canette street. The monumental fountain is so far progressed, that its main features become apparent. Large pilasters arise on the angles of the monument, and the sculpture of the capitals promises to be finely executed.

"*Turning out*" *of* "*bothersome*" *Market-places from Paris.*—A decision of the Common Council of Paris, approved by the great council of the metropolis, has *suppressed* the two markets d'Aval and Du Roule, hitherto used for the sale of charcoal. This encumbering (albeit not *absolutely objectionable*) traffic is now expelled to the market-place des Recollets, situated in a distant quarter of the Faubourg St. Martin. The general council have also voted the sum of 100,000 francs for the *salubrification* of the district of Montmartre, as well as those of Batignolles, Monceaux, and Sablonville.

Revision of the Legislation! on Fire Insurances in France.—The Secretary of State for Commerce, &c. has formed a commission for the revision of this important branch of civic legislation. This commission is formed of the most competent persons of both branches of the legislature, sprinkled with some of those numerous *employés* in the departments of commerce, industry, &c. It will be presided by the Secretary of Commerce himself, and counts amongst its members Messrs. Teste, peer of France; Rénouard, ditto; Felix Réal, deputy, &c. &c.

Complement to Railway Communication.—The French government, warned by the late inundations of the Loire and other rivers, as well as many other accidents which may befall the (delicate) organism of railways, and thus delay the ordinary course of intelligence transmission, have voted a sum of 200,000 francs for keeping up the regular post-horse establishments, especially on such transversal roads, by which main points of railway communication can be gained, if others have become inaccessible.

GAS.

We have often remarked upon the inferiority of the gas furnished by the metropolitan companies, and errors in their management, and are glad to find that a company ("The Western") is establishing, for the supply, on a large scale, of gas produced from Cannel coal. The nature of this gas is well known in the north, and used throughout the houses of the best people there, many of whom, living in London in the winter months, are anxious to have it introduced into their houses here.

The principal works of the company will be at Kensal-green. We perceive by a case recently before the Court of Chancery, that a violent opposition has been raised, which, from the judgment of the court on that occasion, will, we are inclined to believe, altogether fail, as, by the evidence produced on the part of the company by numerous scientific men of the first character, to which, before we would speak on the subject, we have given attention, it appears clearly, that the introduction of a pure and brilliant gas can be accomplished without any of the nuisances created by the methods now used.

If the new company, by their improved processes, and the spur their establishment will prove to the existing companies, enable the public to obtain *pure* gas, at a *cheap* rate (as they may do), and so facilitate its more general use, it will be a subject for great congratulation, and will entitle them to general support.

Flixton Hall, Suffolk, Destroyed.—This interesting Elizabethan structure, illustrated in our pages a short time ago,* was totally destroyed by fire on Saturday night last, together with its valuable gallery of paintings. It is attributed to the overheating of a flue in the centre of the hall.

* See page 330, *ante*.

NOTES IN THE PROVINCES.

In excavating a new sewer in Winkle-street, Southampton, a few days since, a lofty and extensive subterranean passage was accidentally opened by the workmen. It appears to have been cut in the old wall of the town for defensive purposes, or means of escape if the enemy should scale the walls.——The plan for the Portland breakwater, as sanctioned by the Woods and Forests, is deposited with Mr. C. Hinde, Reforne, Portland, where it may be inspected by any one interested in the formation of this national work.——By the way a breakwater for the protection of war-vessels is to be constructed at the Isle of Alderney. ——The demand for cement stone at Harwich is now so very extensive, chiefly from the large quantities of the prepared article used in railway works, that the stock, usually consisting of several thousand tons at this season, is now quite exhausted. Prices have, in consequence, risen 30 per cent., while the dredgers are reaping a proportionate benefit. It is calculated that 25,000*l.* per annum are paid away in wages alone to the workmen employed in this trade.——A district national school for 200 boys and 200 girls is to be erected at Ipswich, in place of the St. Nicholas school-room, required for railway approaches. —— Old Weston church, Huntingdonshire, has been lately undergoing considerable repair. The whole has been repewed, with new reading desk, pulpit, font, and screens to chancel and belfry tower, under the direction of Mr. George Allen, architect, Saint Ives.——The Lord Bishop of Lichfield has given 1,000*l.* to the Lichfield Diocesan Church Building Society. ——12,023*l.* have now been subscribed for the Liverpool Church Building Society. Among the last subscribers are the Earl of Derby, 300*l.*; Mr. R. B. B. H. Blundell, 200*l.*; Mr. C. Leyland, 200*l.*; and Mr. James Lawrence, 100*l.*——A portion of the extensive dock-buildings at Birkenhead, are so far advanced towards completion, that the contractors, Messrs. Milton and Morris, have commenced putting on the roofs. Mr. Brassey, we understand, has undertaken the completion of the docks, at a sum exceeding a quarter of a million sterling, as soon as the large backwater tunnel from the upper part of Wallasey Pool to the Woodside slip is completed.——A new borough gaol is to be built at Leeds at a cost of 40,000*l.*——As the enlargement and restoration of Pittington church, Durham, has progressed, says the *Durham Advertiser*, "discoveries have been made which will furnish matter of curious study to antiquaries, and somewhat puzzle the confident race of modern architects." We cannot, however, learn what these are from the account.——Three of the Eglinton iron furnaces, according to the *Kilmarnock Journal*, will be in blast before the year expires, and a fourth is being built. They are said to be higher and of wider diameter than any hitherto erected, and to be designed on the most approved models for efficient working.

Literary Re-union.—In connection with the Britton testimonial, a number of dinners were given last season by the friends of that gentleman. On Saturday last, Mr. W. Tooke, F.R.S., recommenced them, by entertaining at a round table, in the Freemason's Tavern, Messrs. Bernard, Peter Cunningham, N. Gould, T. Grissell, W. Herbert, Humfreys, Q.C., Godwin, W. Jerdan, J. Bowyer, Nichols, A. W. Tooke, and S. Warren, the author of "Ten Thousand a Year." The Rev. Mr. Mitford, Messrs. Thomas Cubitt, W. Tite, and Charles Knight, were also to have been there, but were prevented. Mr. Britton was unluckily kept away himself by illness. At the last preceding meeting artists preponderated, including Mr. Uwins, Mr. Roberts, and Sir W. Ross, of the Academy, Mr. Harvey, Mr. Wagstaffe, &c.

Antiquities near Melrose. — Several discoveries have recently been made in and about Newstead, including a subterranean chamber or recess, which was come upon by a labouring man while draining in the fields. The place was of a vaulted shape, and extended inwards about sixty feet, its breadth varying from four to seven feet. It was built of freestone, and two of the stones which were taken out of it were ornamented with a kind of rope-carving of beautiful workmanship.

RAILWAY CARRIAGES.

We recommend the following remarks on this subject, from Mr. Ritchie's late interesting work,* to the consideration of all railway directors.

"There can be no doubt that when Government had to introduce a bill into Parliament to protect the rights of the working classes in railway transit, by restricting the rate of charge for third class passengers to a penny per mile, and requiring railway companies to run at least one train having covered third class carriages daily, that much indifference, to say the least of it, must have been shewn before any interference took place. But why restrict the penny a mile trains to once a day? why should not carriages of this kind go with every train? Little doubt, however, can be entertained that the construction of railway carriages in this country must be soon entirely remodelled, or at least material changes made on those now in use, before either much comfort or safety will be attained in the cheaper class carriages. It is bad enough to be exposed to the annoyance of dust and risk of losing ones eyes in open carriages, without showers of red-hot cinders, which could be greatly mitigated or entirely prevented by proper mechanical contrivances. Many persons would prefer the open carriages in fine weather, irrespective of the charge, were it not for these annoyances; and in Belgium the waggons or open cars are filled with respectable people, who smoke away at their ease.

In this country the government third class carriages are so hideous and dismal, air and light being nearly both excluded, that they are more adapted for carriage of prisoners than passengers. In some of the third class government carriages there is a wax cloth curtain to draw over the opening, in others a small open window, or rather hole, is left on both sides of the carriage, excluding all view of the country. Till the government regulation the third class were open stalls. The standing carriages are now on some lines called fourth class carriages, and open carriages with seats are called third class carriages. One cannot wonder a third class passenger will rather prefer the external atmosphere to the internal of the close penny a mile carriages. For example, in the third class government carriages on some railways, when all the blinds are drawn up, which often happens in cold weather, the carriage, in daylight, is involved in total darkness. Well may it be asked, is such a carriage a proper conveyance for any one, far less females. Why should not glazed windows be in every carriage? It cannot be the expense of glass; and a penny per mile is surely sufficient to cover such expenses and pay the railway company properly; and when night trains are used they should be properly lighted. Indeed, it may be questioned if the second and third class passengers are not the most paying, as they are the most numerous class on every railway, and low fares tend clearly to increase numbers, and why should their comfort not be more attended to? In the Belgium railways, which are placed under the management of a government director, who acts under the control of the Minister of Public Works and other functionaries, the rate of charge was formerly higher. When lowered an increase in the number of passengers took place. The charge, I believe, now is:—

1·14 pence per mile first-class carriage,
·93 ,, ditto second-class ditto,
·56 ,, ditto third-class ditto,

or about sixpence for ten miles for the third class; while in this country the lowest rate fixed by Act of Parliament is a penny per mile, being nearly one-half more. The first class is nearly 1s., and second class 10d., for the same distance. This, for forty-six miles, would respectively be, about 4s. 8d., 4s., and 2s. 4d.; while the prices in this country are, 8s., 6s., and 4s. for the same distance.

The railway companies in this country might do well to take a lesson from their continental neighbours. The carriages in Belgium consist of three classes, as here; but they possess more comfort and convenience, besides being cheaper. The diligences, or first class, have a sort of vestibule, from which there is ingress to a separate spacious apartment, handsomely fitted up, or the carriage is divided by a narrow passage into two compartments; they are stuffed throughout, and exceedingly comfortable conveyances. The second class, chars-à-banc à glacis, consist principally of one large apartment, entirely closed in at the sides, as the name implies, with glazed windows and well-arranged cushioned seats. The third class, opened and covered waggons, do not differ much from the second, having covered seats; but the roofs are sometimes supported at the angles of the carriages by iron rods. The carriages are generally seated to hold thirty-two passengers, and the doors are usually placed at the ends. Carriages made entirely of iron have recently been introduced on the Belgian railways. Nor need we look to Belgium alone: in France the carriages generally approach to the style of the first class in this country. The second and third class, or *wagon*, far surpass the corresponding classes on our lines. The second, and commonly the third classes in France are perfectly closed carriages, stuffed, cushioned, and glazed, each class being only a little inferior to the other in decoration. The fares, too, are generally low.

The adoption of such a plan of carriages as those on the Belgian railways, would prevent the risk from the numerous doors in all classes of carriages used in this country. These doors are generally fastened by a common spring latch, which a sudden jerk may break or derange. Few can travel in any of the present carriages without the apprehension of serious accidents even from the people falling out. We are always hearing of hair-breadth escapes; and in a late newspaper the case is mentioned of a child falling out of a carriage unperceived, and how can it be otherwise when there is hardly room to move without coming in contact with a door? I have seen several instances of persons nearly losing their lives from the door on which they leaned suddenly bursting open. Very little ingenuity could remedy this defect; a simple drop bolt inside the carriage in combination with the latch might suffice.

Another very dangerous and improper practice which exists on several lines, and which creates well-grounded alarm to passengers, is, making the guard step from carriage to carriage by the side steps, holding on by the door handles, in order to collect tickets, and often when the train is going at great speed. The least sudden jerk, or his slipping his hold, would occasion loss of life. Surely such a practice ought to be condemned, for it is as repugnant to common sense as to humanity."

* "Railways, their Rise, Progress, and Construction." By R. Ritchie, Civil Engineer. Longman and Co., 1846.

RAILWAY JOTTINGS.

The report of the committee on the condition of the railway labourers, lately published, contains a sad account of the condition of these poor men, and of the oppression and injustice to which, we are sorry to say, they are too often subject, in recovering the fair amount of their hardly-earned wages.——The creditors of the bankrupt railway company (the Tring, Reading, and Basingstoke) have been promised a dividend of 20s. in the pound on their respective claims. The shareholders too in most cases are said to have agreed to the return of 3*l.* 3s. per share offered by the directors.——It is said that although the South-Western line will ultimately extend to London-bridge, the principal terminus, which is to surpass in magnificence every thing of the sort hitherto exhibited! will be at Hungerford-bridge; on the site of which the company are to build another bridge, whereby passengers will be conveyed at once into the heart of the metropolis.——At Windsor, on Monday week, a very stormy assemblage met to consider a proposition from the Great Western Company to carry a branch through Eton, where, as articulated, in the midst of the storm, by one "loud Boreas," youths run about at large, "unruly as wild blood-horses,"—ripe for every mischief, we suppose he meant, and ready, as exemplary sprigs of nobility, to run any given "branch," with the sprigs themselves to boot, into one eternal pickle. In short, the Eton College authorities denounced the risk of opening a railway line through the dangerous wilds and fastnesses of Eton; and a miscellaneous assemblage, full of division and of resolution, could arrive at neither resolution nor division on a subject wherein it appeared they could agree to nothing but to differ.——

Mr. Herepath, in his journal, asks the Great Western chairman why the books of his company were not kept in ink but in pencil!——Luggage vans, constructed on a principle in which safety to the train and accommodation to the luggage are combined, are henceforth to be used on the London and North-Western and the Eastern Union lines. They are firmly bound and breasted with iron-work, and supplied with buffers so strong and screws so powerful and elastic that it must be a dreadful collision, it is thought, if any at all, that will snap them. The interior is divided into compartments for different stations, and the guard is provided with a room next the train, a power-break, and a good look-out ahead.——The lives of passengers in general and of about a dozen of poor masons or other workmen in particular, were lately put in jeopardy by the insufficiency and the consequent dilapidation and fall of a bridge over the Norfolk line, opened on Monday week. A sinking having previously taken place, Mr. Merrit, the subcontractor, was ordered to take it down, and the men were engaged in dilapidating the bridge, after dark, by the light of large fires on the crown of the arch, when the whole mass fell into ruins, and the men were much injured and scorched while falling, and mingling with the rubbish and burning fuel.——A "disastrous slip" on the Whitehaven Railway was reported at Carlisle last week, but contradicted by the *Cumberland Paquet* of 8th instant. The same authority informs us that Messrs. Townsend, the contractors for forming that portion of the Whitehaven and Furness Junction extending from Corkicle, adjoining Whitehaven, to beyond St. Bees, have commenced operations, and calculate on a great accession of strength to their force. Mr. Sealby, of Hensigham, the contractor for erecting the temporary wooden buildings at the Whitehaven station, is pushing forward that work; but the masons at the new railway hotel, contiguous to the station, have been much retarded by the frost. Messrs. Ritson, the railway contractors, have had two sections allotted to them on the Carlisle and Glasgow line, *viâ* Dumfries, situate, we understand, between Annan and Dumfries.——A vein of copper ore has been revealed by the tunneling operations at Mossgiel, in Ayrshire.——There are now employed on the works of the Waterford and Limerick Railway, in and about Limerick, 120 carpenters, at wages varying from 3s. 4d. to 4s. per day; 52 smiths, earning from 3s. 10d. to 4s. per day; 250 masons, at 4s. 4d.; and 50 labourers, at 1s. 6d.

ST. MARY'S CHURCH, MILFORD.

The new district church of St. Mary, erected at South Milford, near Ferrybridge, at the expense of the Misses Gascoigne, aided by grant from the incorporated society, and lately consecrated, is a fabric built in the early English style of the 13th century, on a site presented by Lincoln College, Oxford, and Mr. B. Crossland, of Milford. The entire length of the church is about 90 feet. It comprises a nave and chancel, with a north porch, and an octagonal vestry on the north side of the chancel. At the west end of the nave is a gable-turret. The building is of Ashler dressed Huddleston-stone; the roofs being covered with Westmoreland slate and an ornamental ridge tile. The nave is 52 feet long by 27 feet wide; and the interior height is 37 feet. The roof is high pitched, and shews the ribs and framing, which are stained. The floor is paved with flags; and the seats, which afford accommodation for about 300 persons, are open. The pulpit is of carved oak, without any staircase in the church. The font is of Huddleston-stone, of a circular form, with a carved trefoil ornament. It stands near the north porch. The nave is lighted by seven lancet windows in the side walls, and two at the west end, surmounted by a rose-window: also a vesica-window over the chancel arch. These, as also the windows in the chancel, are glazed with cathedral glass. The doors are of oak, with wrought-iron work. The chancel is in length about 29 feet, in width 18 feet, and in height 17 feet. The roof is high-pitched, and open, the timbers being all shewn. The floor is paved with encaustic tiles. In the east wall is an arcade worked in stone, and surmounted by three lancet windows, and a Trinity window at the extreme point of the gable. There are also three windows in the side walls of the chancel. Under the vestry is a chamber, in which hot water has been fixed, for warming the church. The designs were by Mr. Fowler Jones, architect. The builder was Mr. Benj. Bulmer, of Thorparch. The cost, it is said, will not exceed 1,500*l.*

Correspondence.

FACILITY OF COMMUNICATION.

Sir,—Permit me to direct your attention to the connection which exists between the objects of your publication, and certain social improvments which have been recently introduced amongst us, or what are now in progress towards practical development. These are,—

1st. The penny post and hourly deliveries in London.

2nd. The Parcel Delivery Company, Parcel Mail Company, and Post Parcel Company.

3rd. The halfpenny, penny, and twopenny, steamers.

4th. The twopenny, and threepenny, and penny a mile omnibuses.

5th. The Economic brougham and cabriolet Company, limited to 6d. per mile, and guaranteed against impositions.

It must be obvious, that all these communications for transit bring in a new state of things, as regards the facilities for a comfortable residence at a distance from the localities of ordinary occupation. A merchant, a tradesman, a clerk, or even a journeyman mechanic may, with such facilities at his command, have his dwelling in a healthy and open neighbourhood, two or three miles from the crowded centres of the metropolis, where it may be necessary to attend in the pursuit of his trade or profession. The value of property at a distance from these centres, will consequently be enhanced; and even the poorest classes enabled to enjoy healthful and commodious dwellings.

I am sure the subject only requires to be suggested to you, to lead you to concur in the opinions above expressed, and to induce you to direct the attention of the owners of property, and of the public generally, to the great interest they have in promoting the success of these signal improvements. X. Y. Z.

CART NAVES—OVENS.

Sir,—Can your readers inform me what is the best mode of obtaining good cart naves in the rough, without cracks? I have cut elm, oak, and chesnut, at different times of year, in foot lengths; steeped them in water, covered them with cowdung! Some with and some without an auger hole, and still they crack.

They do not seem to make any the worse wheels for all that, but still, if there is a way of preventing the rending, I should like to know it.

Is an oven-builder correct in saying that it is madness to build an oven with *fire brick!* it would burn the bread! but that soft, half-burnt brick is the only thing to make a job!

N. M.

RESPONSIBILITIES OF SURVEYORS.

Sir,—Are the parties furnishing quantities for an estimate, and *paid for the same*, liable for the differences, should they be found to any extent deficient? G. P.

Bristol.

*** We have no doubt they are.

Remission of Duty on Woods.—Several persons have addressed us, with much reason, on the bit-by-bit remissions of duty on woods which have been made, and the want of that comprehensive view of the subject, which ought to have been taken. Locust treenails, and greenheart and Mora wood, are now admitted free of duty, in accordance with a recommendation of the Board of Trade.

Hot and Cold Blast Iron.—We are informed that a series of experiments recently made under the direction of Mr. Stephenson, fully bear out a statement which appeared in our pages, that hot blast iron is superior to cold blast, when properly made, although the reverse has been always considered to be the case.

Miscellanea.

Paper-hangings.—In an able lecture on industrial art, recently delivered in Worcester, and which we are glad to hear is likely to lead to the establishment of a school of design there, Mr. Wallis said:—"Some years ago, an eminent French artist came to this country, bringing two others with him, the one a practical designer and the other a mixer of colours, for the purpose of setting up a French paper-hanging establishment. These paper-hangings were at that time very expensive; and the artist thought that if he could establish a manufactory in London, he should be enabled to furnish a superior article at a cheaper rate; he was encouraged by several men of rank and wealth, and amongst others Mr. Rothschild engaged to support him to any amount. He took a building, got up designs, engaged good workmen with superior wages; he set to work, but in nine days after the establishment had got into fair play, the men struck—not on account of low wages, or any other unpleasantry, but as they said "because these Frenchmen have as many colours as there are days in the year, and we wont have any thing to do with them." The fact was, the men had been accustomed only to a certain number of colours, and any extension or improvement in that respect was looked upon as gross heresy. The consequence was, the manufactory was given up in disgust, and the principal of it was now one of the leading manufacturers in France, whose designs in house hangings were everywhere copied.

Abuse of English Monuments.—At the last meeting of the Archæological Institute, Mr. Hudson Turner, in the course of a paper on the ancient decorative arts, called especial attention to a beautiful cast, exhibited by Mr. Willement, of the wrought-iron screen which formerly inclosed the monument of Eleanor, consort of Edward the First, in Westminster Abbey. This beautiful specimen of the iron-work of the 14th century was removed but a few years since, and is now rusting in the vaults or crypts of the Abbey. In Mr. Willement's opinion, he said, it is scarcely inferior in beauty to the celebrated work at Notre Dame. And Mr. Turner observed, it should possess great interest in the eyes of English archæologists, as he had discovered that it was the undoubted work of an English Smith, one Adam de Leighton, of Leighton Buzzard, in Bedfordshire, who received 12*l.* for the entire fabric—equal to about 180*l.* of the present currency. It is to be hoped that under the auspices of the present dean this remarkable specimen of the excellent craft of a provincial smith in the old time may be either restored to its original position, or preserved from further possible mutilation or decay.

Competition: East Greenwich.—The designs for the intended new church at East Greenwich were sent in on the 3rd, and that by Mr. Brown, of Norwich, was selected out of a list of eight competitors. The cost is not to exceed 5,000*l.* Accommodation, 1,300, with a tower at the south-west angle. The seats are to be open. The exterior is to be faced with Kentish rag-stone.

Bridgewater House.—The proposed application to Parliament for leave to use a certain portion of Cleveland Court, St. James's, leads to the inference that the new house is at last to be commenced. The design, by Mr. Barry, as exhibited a few years ago at the Royal Academy (including, it will be remembered, a massive and lofty campanile), has been considerably altered and reduced.

Operative Builders's Association.—It is proposed to form a society for the relief of decayed master tradesmen, and also for the purpose of relieving any of the mechanics connected with the several branches of building, in case of accident, loss of life, or protracted illness. We shall be glad to hear more from the promoters of it, when put into shape.

Surveyors Made in a Month.—A number of respectable persons in Bury and its neighbourhood, have been taken in by a person who undertook to make them competent surveyors for six guineas, in something less than no time. Having obtained the money, he decamped. The victims ought to have known better.

The Bishop of Gibraltar is taking measures for the erection of a Protestant Church at Corfu.

LONDON SEWAGE CHEMICAL MANURE COMPANY.—We observed last week, that the Sewage Manure Company intended to go to Parliament for an Act to construct drains, &c. We have since found that the chemical manure company have also given parliamentary notices, and propose to erect works in Westminster, Lambeth, and Bermondsey, preparatory to a more extended application of their plan in a future session. It is stated, that by the plan proposed no offensive exhalation can possibly occur; whilst the manure will be a concentrated and portable substance, and quite smellless, possessing fertilising properties of the richest description, and yet two-thirds the price of guano.

TO CORRESPONDENTS.

"*J. S.*" (Hammersmith).—Apply at once to the owner of the rag-merchant's house.

"*A Builder and Subscriber.*"—The inquiry proposed does not seem to have any public interest.

"*Old Subscriber.*" (Lyme Regis).—The diminution of flues towards the top is not advantageous.

"*Constant Reader.*"—We cannot give an opinion of the metallic sand. Brick, finely pounded, might be used as a substitute for Smith's ashes, if the latter cannot be obtained.

"*Nicholson's Works.*"—Our correspondent "X." had no desire to lessen the real fame of Mr. Nicholson. "G." does not shew that "X." was inaccurate.

"*Plan of London Sewers.*"—A correspondent suggests that such a plan for the use of the public is a *desideratum*.

"*A. W. M.*"—Notice of all competitions which come under our eyes will be given,

"*J. S.*" reached us too late for consideration this week.

"*W. C.*"—We shall be glad to see any subjects he may think will suit us.

Received—"G. Holding," "G. R. L.," "T. I. M.," "J. P. W.," "F. N." (Gloucester), "Decorative Art Society."

NOTICE.—Christmas-day falling on Friday, the next number of THE BUILDER will be published early on Thursday morning.

A limited number of volumes of 1846, in cloth, price 17*s.* 6*d.*, containing an immense mass of information, and 220 Engravings, may be had by early application.

ADVERTISEMENTS.

ROYAL POLYTECHNIC INSTITUTION.

BY PERMISSION.—PROFESSOR SCHŒNBEIN'S GUN COTTON, differing from all other specimens recently before the Public, is lectured on, with other Explosive Compounds, by Dr. Ryan, daily at half-past Three, and on the Evenings of Mondays, Wednesdays, and Fridays. The principle of the Electric Telegraph demonstrated daily by Prof. Bachhoffner, especially with reference to the new Patent of Messrs. Nott and Gamble, called the Royal Electro-Magnetic Telegraph. By the Oxy-Hydrogen Microscope are exhibited Specimens of the Diseased Potatoe, shewing the Leaves, Cuttings of the Tubers, &c., together with the Destructive Insect, supposed by A. Smee, Esq., F.R.S., to be the cause of the disease. The Physioscope, Diving Experiments, Dissolving Views by Smith, &c. &c.—Admission, 1*s.*; Schools, Half-price.

An entire New and Beautiful Series of Dissolving Views will be introduced at Christmas, and the Institution will be open on the Evening of Saturday, the 26th.

IRON-WORK FOR BAKERS' OVENS.

F. A. TIDDEMAN, Purfleet Wharf, Earl-Street, Blackfriars, keeps an assortment of Stocks, or mouth-pieces; Plates, Furnace-bars, Top and Fall Pieces, Stoppers, Chimney-bars, Inside, Outside, and Ash-pit, Doors and Frames, Boilers and Frames, Lamps, &c. &c.: all of the best description, at very moderate prices.—CAST-IRON UPSETS.

HENDRY and GLOVER, IRON-FOUNDERS, beg to inform their customers that they have removed their Foundry (from Smart's-buildings) to CHARLES-STREET and 108, DRURY-LANE, where they have adopted every improvement to enable them to compete successfully in quality, price, and punctuality. They have also an extensive and well-arranged stock of patterns for every description of Castings.

MORTGAGE AND ANNUITY OFFICE, No. 123, CHANCERY-LANE.

PERSONS requiring LOANS by way of MORTGAGE, or otherwise, upon any available security, may at all times procure an advance to the extent of from 100*l.* to 150,000*l.*, or so much as the property will bear, by applying to Mr. BRAY, surveyor, at the offices as above.

N.B. To expedite the procuration, personal application at the office would in all cases be better, the party bringing with them the abstract of title, plans, &c.

TO ARCHITECTS.

THE attention of Architects is directed towards the new Patent for CARVING IN WOOD, STONE, and MARBLE, by MACHINERY. This interesting invention will enable them to see their plans carried out, which in many cases they are prevented doing, owing to the enormous expense attending hand-carving. The work, when executed by this machine, whether in stone or wood, has the appearance of hand-carving done in a masterly style. Monuments beautifully executed to any design, at an immense saving in price. The works are in full operation, and Architects are invited to inspect their merit at Eccleston-place, Eccleston-street, Pimlico, late Chauntrey's foundry.

ARCHITECTURAL ENRICHMENTS.—BIELEFELD'S IMPROVED PAPIER MACHE, which has been almost universally adopted for architectural decorations, has been patronised by her Majesty, by the Hon. Commissioners of the Board of Works, by the highest of the Nobility and Gentry, and by the most eminent architects of the day. It has been used at the royal palaces, at the present House of Lords, at Dublin Castle, at Drayton Manor, the new Conservative Club-house, at Grocers' Hall, &c., also at the British Museum, and Pantheon Bazaar, where it has been extensively used for some years, and an inspection will sufficiently establish its superiority over every other kind of composition, both for beauty and durability. Designs prepared for the decoration of ceilings, panelling of walls, &c. A volume of enrichments, containing more than 1,000 designs of the papier mâché ornaments, with a tariff, price 1*l.*—Works, 15, Wellington-street, North, Strand.

LIGHTNING CONDUCTORS FOR BUILDINGS.

A. SMITH'S PATENT COPPER WIRE ROPE is being daily employed for the protection of CHURCHES and other buildings from the effects of thunder storms; it possesses important advantages over other forms of conductors. References can be given where it has been applied for some time past to CHURCHES, PUBLIC and PRIVATE BUILDINGS, &c., &c. Its general adoption in the Naval and Mercantile Marine of this and other countries is the strongest possible EVIDENCE of its EFFICIENCY, &c.

A. SMITH begs the attention of those engaged in building to his IMPROVED PATENT PANELLED AND REVOLVING IRON SHUTTERS,—Also, the Patent Weather-tight Fastening and Cill Bar, for French Casements, which are so much admired for their security, simplicity, cheapness, and efficiency. Of the merits of his

Patent Double and Single Action Door Springs,
Improved Flooring Cramps,
Patent Wire Sash Lines, &c. &c.,

Little need be said, as they are pretty generally known and appreciated.

Manufactory for Iron Suspension, Sliding, and other Doors, Strong Rooms, Plain and Ornamental Palisading, Gates, and Columns.—Also, Metal Sashes, Shop-fronts, Stall-board Plates, Brass butt, and other Hinges. Buildings heated upon a new, safe, and superior plan.

Estimates given for every description of Metal-work.

A. SMITH, 69, Princes-street, Leicester-square, London.

PAVING, 2*s.* 9*d.* PER SQUARE YARD. Basements, Foot walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of pavement laid down at the above low price, and the work guaranteed.—Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, 15, WHARF-ROAD, CITY-ROAD.—N.B. Country Agents and Railway Engineers and Contractors supplied with the best bitumen for covering bridges and arches.

COMMISSIONERS OF FINE ARTS' REPORT ON THE MEANS OF PREVENTING DAMP IN WALLS.

THE DIRECTORS of the SEYSSEL ASPHALTE COMPANY have much pleasure in recommending to the notice of Architects, Builders, and others, the application of the ASPHALTE of SEYSSEL as the only effectual means of preventing DAMP rising in WALLS. J. FARRELL, Secretary.

Seyssel Asphalte Company's Works,
"Claridge's Patent."
Stangate Depôt, London.

The following account of its application is extracted from "The Appendix to the Commissioners of Fine Arts' Report," page 18:—

"In 1839 I superintended the construction of a house of three stories on the Lac d'Enghien. The foundation of the house is constantly in water, about 19½ inches below the level of the ground floor. The entire horizontal surface of the external and internal walls was covered, at the level of the internal ground-floor, with a layer of SEYSSEL ASPHALTE, less than half an inch thick, over which coarse sand was spread.

"Since the above date no trace of damp has shewn itself round the walls of the lower story, which are for the most part painted in oil of a gray stone colour. It is well known that the least moisture produces round spots, darker or lighter, on walls so painted, yet the pavement of the floor, resting on the soil itself, is only about 2½ inches above the external surface of the soil, and only 19½, at the utmost, above that of the sheet of water.

"The layer of Asphalte having been broken and removed, or the purpose of inserting the sills of two doors, spots indicating the presence of damp have been since remarked at he base of the door-posts."

THE CHRONOMETRIC GOVERNOR invented by Messrs. SIEMENS, of Berlin, patented and supplied by JOSEPH WOODS and Co., Barge-yard-chambers, Bucklersbury, London, has now been in constant use, for regulating the supply of power for grinding corn, and moving machinery of other kinds, for a considerable time, and it is found to succeed perfectly in producing an instantaneous and automatic adjustment of the supply of power, without allowing any variation of speed; the result of which enables all manufacturers, dependent on regularity of the velocity for a maximum result, to attain a greater uniformity in, and increased quantity of, the manufactured article produced in a given time, without increasing the expenditure of power. This effect in grinding corn amounts to an increase of 10 per cent.

These instruments may be applied to existing steam-engines, water-wheels, &c., without interruption to their constant work, and at an expense very much below the value of the advantages obtained.

Testimonials may be seen, and every information obtained, at the office of the Patentees, and cards for admission to the numerous flour-mills, saw-mills, and other works in different parts of the country, where the Chronometric Governor is employed, on application to them.

SILCOCK and Co.'s PATENT PLANES may be had at the following places:—

Archer, 45, Goodge-street, Tottenham-court-road; Blyth, Whitechapel; Cock, 424, Oxford-street; Dean, 46, King William-street; Fenn, 103, Newgate-street; Holtzapffel and Co., 64, Charing-cross: and of all ironmongers and tool dealers in the United Kingdom.

WALLIS'S PATENT LIQUID WOOD KNOTTING.—This newly-discovered Liquid Composition which Messrs. Geo. and Thos. Wallis have the satisfaction of introducing to the trade, possesses the important qualification of effectually stopping Knots in Wood, however bad, and preventing them eating through and disfiguring the paint above.

Many substances have been used and much time spent in endeavouring to find a cure for a bad Knot, but hitherto without success. Messrs. Wallis therefore feel much pleasure in offering to the public an article so long and anxiously called for.

In the application, skill is not required; it is put on to the work with a brush like common paint, can be used in all climates and situations, and does not require heat.

Sold wholesale and retail, by Messrs. G. and T. Wallis, Varnish, Japan, and Colour Manufacturers, No. 64, Long Acre. Price 16*s.* per gallon.

STEPHENS'S PROCESS for DYEING or STAINING WOOD, as a substitute for Paint. The natural grain of wood is imitated by art, but the most successful imitation has a sameness of appearance when compared with the continual variety which different woods present in their natural grain. To give an ornamental colour to the wood without obscuring the grain, is the object of this process, which surpasses paint in appearance, while at the same time it is so economical that the whole interior of a house, which would take a month or six weeks to paint in the usual manner, may be finished in one week by the process above named, and be more pleasing when finished. The dyes or stains are prepared and sold by HENRY STEPHENS, 54, Stamford-street, Blackfriars-road; sold also at the Office of "THE BUILDER," 2, York-street, Covent Garden, London; Hodkinson, Widemarsh-street, Hereford; R. Sutton, "Review Office," Nottingham; H. Wills, 39, High-street, Lynn; and in Manchester, at Crake's Marble Works, Garratt-bridge. In bottles of 6*d.* and 1*s.* each, and at 10*s.* per gallon. The oak colour may be obtained in powder at 8*s.* per pound, which dissolves in water to form the liquid, and one pound will make one gallon of stain.—N.B. The Trade supplied.

TODD'S PATENT PROTOXIDE PAINT, manufactured by CHAS. FRANCIS and SONS, CEMENT WORKS, NINE ELMS, LONDON.

The properties of this Paint are peculiar for preventing iron from oxidation, wood from decay, and masonry from damp; it neither cracks nor blisters with the hottest sun, and is therefore most valuable for Railways, Boilers, Steam, Gas, and Water-pipes; Hothouses, Forcing-houses, and for Shipping. Its adhesion is so great to iron and wood, that the hardest friction will scarcely remove it. It prevents vegetation on stuccoed buildings, and is not affected by spray of sea-water.

PROTOXIDE PAINT is sold ground in oil, and, compared with white-lead, its property of concealing is as 75 to 50, so that one hundred weight is equal to one and a half of lead. It works well under the brush, and forms with oil an unctuous and cohesive mixture. If blended with other paints it has a softer tone than white-lead. For houses painted during occupation it is most preferable, being perfectly innoxious.

VARNISH, COLOURS, WHITE LEAD.

Genuine White Lead	per cwt.	27*s.*	0*d.*
Seconds	,,	25	0
Thirds	,,	23	0
Linseed Oil.....	per gallon	2	3
Turpentine.....	,,	4	6
Putty	per cwt.	7	6
Patent Dryers	,,	36	0
Oxford Oker	,,	36	0
Varnishes equalled by none:			
Fine Oak	per gallon	10*s.*	
,, Carriage	,,	13	
,, Copal	,,	18	
,, Body Copal	,,	24	
,, Gold Size	,,	10	
,, Black Japan	,,	10	

Painters' Brushes, and every article in this branch, at the Manufactory, 87, Bishopsgate-street, Without, London.—THOMAS MILLINGTON, Proprietor.

CHEAP PAN FOR WATER CLOSETS, With Trap, in one Piece.

DOULTON and WATTS, Lambeth Pottery, High-street, Lambeth, London, Manufacturers of the above in superior glazed STONE WARE, price 7*s.* 6*d.* each. They are of the most durable ware, and are recommended in preference to iron on account of their cleanliness and cheapness. If preferred, they can be had in two parts, the pan at 4*s.* 6*d.*, and the Trap at 3*s.* N.B. Manufacturers of RAIN-WATER PIPING for houses.

By Her Majesty's Royal Letters Patent

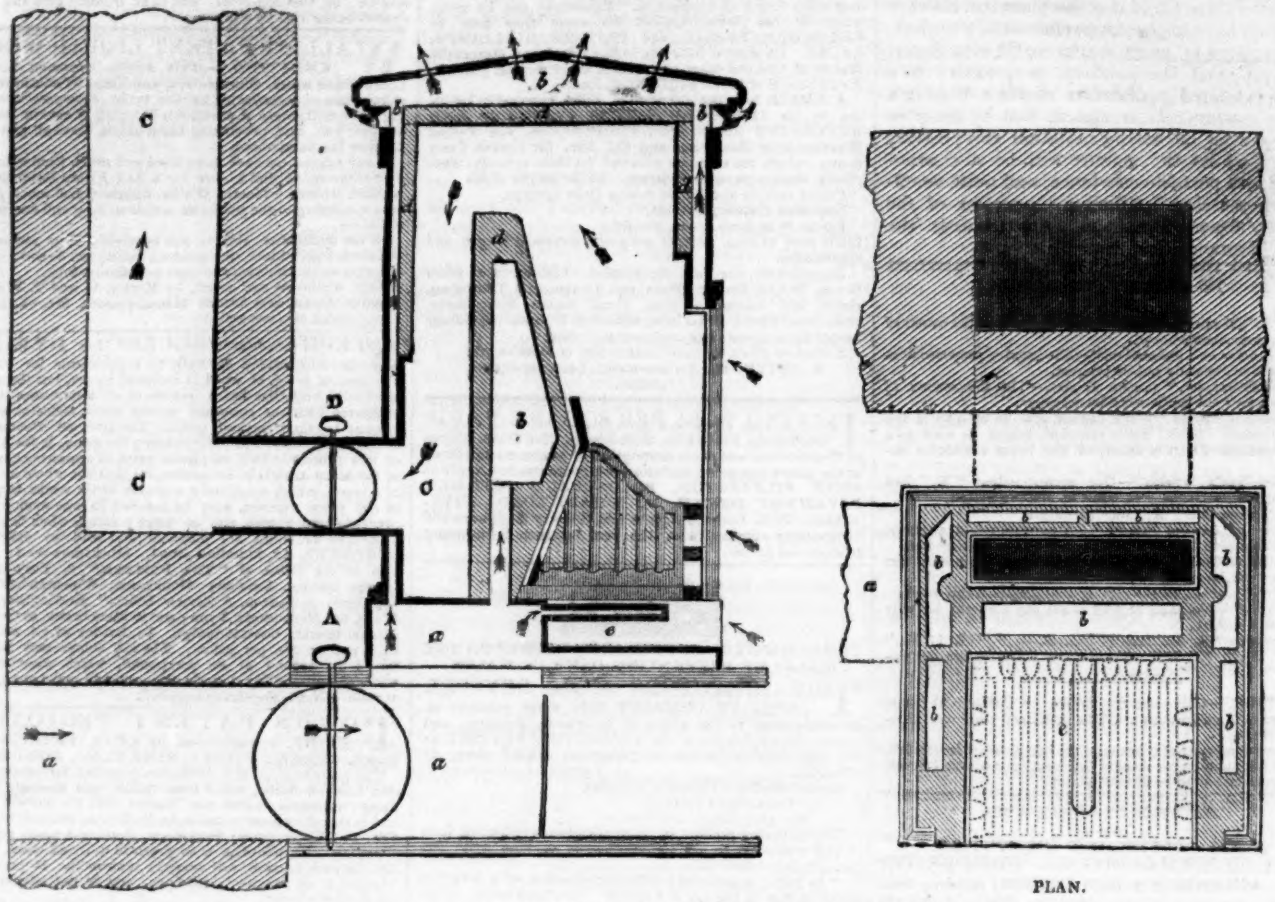
WILKINS'S "SILENT" WATER-CLOSET.—To Architects, Surveyors, and Builders.

Gentlemen,—Your attention is respectfully invited to the above "Closet," the peculiar qualities of which are, that it is perfectly silent in the action of the Machinery and the supply of Water, and may be fixed in any convenient place in the House, without communicating the sound of a Water-closet to any of the adjoining Apartments, while it retains all that is useful in the ordinary Closets, it does away with the Ball Levers, Wire, Cranks, &c., which cause much of the noise to which the old closets are liable. The want of a Water-closet more suitable for the present mode of fixing them in the internal parts of Dwelling Houses and Office Apartments, has long been felt, and the benefit to be derived from one that is "Silent" in the action of the Machinery and supply of water, is sufficiently obvious to render unnecessary any lengthened comment in its favour.

This Closet is simple in its construction, the whole of the apparatus (including the trap), being completed between the floor of the room and the seat of the Closet, thereby rendering it quite easy to remove any noisy Closet and fix the "Silent" one in its place, without interfering with the old trap, which is generally embedded between the floor and ceiling below the Closet. The "Silent" Closet is also clean and so free from any effluvia, as to allow of its being fixed in any bed-room (where there is a convenience of fixing a pipe down the outer wall of the house) without occasioning the least unpleasantness whatever.

May be viewed Daily, and Orders taken at No. 26, Gower-place, University College, London, from 9 in the Morning to 9 in the Evening.

CUNDY'S PATENT IMPROVED OPEN FIRE PLACE, HOT AIR, VENTILATING STOVE.



Description of Diagram.

a a a a Fresh air channel, for admission of external air.
b b b b Hot air chambers (formed with artificial stone, *d d d d*) through which the air passes into the room, and is heated without being injured.
C C C The direction the smoke and vitiated air takes after it has passed through the fire and heated the artificial stone of the hot air chambers.
e Blow pipe to preserve perfect combustion placed immediately underneath the grating of fire place.
A and D are regulators.
The arrows shew the way the external fresh air is admitted, next passing through the hot-air chambers into the room, and lastly taken out of the room through the fire and up the chimney—thus completing ventilation.

This STOVE embraces the following most important principles connected with the economy of

WARMING AND VENTILATING CHURCHES,

And other Public and Private Buildings, viz.:—

HEAT by RADIATION from the Open Fire.

HEAT by CONDUCTION.—A copious and continuous stream of PURE WARM AIR is conducted into the room through the large Stove, at a regulated rate, by means of an air channel underneath the floor, communicating with the external air.

HEAT by REFLECTION.—The external casing of the Stove becoming warm, communicates its heat to the surrounding atmosphere.

VENTILATION produced by the OPEN FIRE—which will carry off the Vitiated Air through the chimney at the same rate the Pure Air is conducted into the room through the interior HEATING APPARATUS of the Stove, thereby keeping up a regular and agreeable system of Ventilation.

ECONOMY of FUEL.—This Stove, from the peculiar construction of the Fire Place, will produce a most BRILLIANT FIRE with the least possible quantity of fuel, and will continue to burn so long as any particle of coal remains.

TESTIMONIALS AFTER A WINTER'S TRIAL.

Gothic Villa, St. John's Wood, Oct. 22, 1846.

SIR,—Perhaps there are few private individuals who have had more experience in stoves than I have had; I have tried most of the newly invented ones, and rejected all but yours, two of which I have tried in my temporary church, and found them to succeed so well, that I have introduced them into All Saint's Church, St. John's Wood.

The following reasons induce me to approve of them:—Exemption of effluvia; the emission of a great body of pure warm air; the perfect system of ventilation; the sight of the fire; the consumption of vitiated air; the little attention requisite; the cleanliness connected with them; and though last, not least, the great economy of fuel.

All more I can say in favour of your stoves is, that whenever I require a stove, either for my house or church, I shall purchase your patent Stoves, and recommend all my friends to do the same. Yours truly,

ED. THOMPSON, M.A.
Incumbent of All Saint's, St. John's Wood.

29, Charter-house-square, Monday, Feb. 17, 1846.

DEAR SIR,—The Stoves which you have recently erected in my church have been highly successful, and I have great pleasure in expressing to you the entire satisfaction which they have given to all parties. The church, which was notoriously noted for its coldness and bad ventilation, is now most agreeably warmed and well ventilated. I shall be most happy, on any occasion, to bear testimony to the excellency of your stoves; and I will endeavour, to the best of my power, to make them known, and I will certainly recommend them to my friends.

I remain, Dear Sir, yours faithfully,
WM. ROGERS, St. Thomas's Charter-house.

St. Thomas's, Charter-house.

We, the undersigned, do hereby certify, that during the last three winters we suffered severely from the cold in the Church of St. Thomas's, Charter-house, although we had three large Arnott's Stoves, which consumed one sack and half of coals each day they were lit. The building was never warm; in consequence of which the congregation fell off, though we had a zealous preacher in the Rev. Dr. James. We have now two of Cundy's Patent Stoves, which consume but one cwt. of coal per day between them, and they impart to the church a comfortable heat and ventilation. WILLIAM BUSHMAN, Verger.
THOMAS GEORGE, Beadle.

St. John's, Fulham, 2nd May, 1846.

My Dear Sir,—I have very great pleasure in giving my testimony to the efficiency of your Stove, as combining the double advantage of thoroughly warming and constantly ventilating any large church or building. Your invention appeared to me to be in theory all that could be desired; and I can honestly say, that I have not yet discovered the point in which the practice falls short of the theory.—The area of my church is computed to be nearly 200,000 cubical feet, and though a second stove will be required, the one already erected has fully answered my highest expectations, and realized all that you had given me to expect. If confirmation were needed for evidence of its efficiency, I might further state, that I had peculiar difficulties to contend with,—that various attempts had been made, and that every attempt had proved a signal failure,—that I was exposed to the charge of boldness in attempting what had baffled others; but that such is the power, the efficiency, and the comfort communicated by your Stove, that I know not of a dissentient voice, and have heard only of approval with unanimous consent.—I might add, that I was first led to the making inquiry respecting your stove, having gathered indirectly, that a disposition not unfavourable towards it was entertained in a certain high quarter, where, on account of ability of discernment, the smallest approach to approval must carry with it great weight.—I remain, Dear Sir, yours faithfully, WILLIAM GARRATT, Minister of St. John's, Fulham.

Letter from the Rev. MATTHEW O'BRIEN, (Professor of Natural Philosophy and Astronomy), M.A., F.R.S., &c., King's College.

Upper Norwood, 22nd June, 1846.

I beg to certify that one of Mr. Cundy's Patent Stoves was put up in my lecture room at King's College, last year, in place of a common stove (of Arnott's construction, I believe). I have no hesitation in saying from actual experience, that Mr. Cundy's Stove is far superior both in producing warmth over the whole room, and in promoting ventilation, without disagreeable currents of air, or close smell. MATTHEW O'BRIEN.

*** Since this stove was put up, four others have also been fixed, one of which is placed in the Medical Library.

Letter from Professor BRADLEY.

King's College, London, July, 1846.

Sir,—I am happy to be able to bear testimony to the efficiency of your stove, which is fixed in my lecture-room at this Institution. It seems to have all the essential requisites of a good stove, a rapid draught, freedom from all smoke, and from that smell which arises from iron, heated in contact with the air of a dwelling-room, which is entirely avoided by your arrangement.—I am, Sir, your obedient Servant, THOMAS BRADLEY.

To be had of the Manufacturers,

MESSRS. DOWSON, 69, WELBECK-STREET, CAVENDISH-SQUARE,

Where they may be SEEN IN OPERATION, and where also may be seen an ELEGANT assortment of REGISTER and other STOVES, FENDERS, CULINARY APPARATUS, &c. &c. ARCHITECTS and BUILDERS supplied with IRON and BRASS CASTINGS, at Messrs. DOWSON'S FOUNDRY, 5, SEYMOUR-PLACE, BRYANSTON-SQUARE. Smith's Work, Gas Fittings, and all other works appertaining to a Smith and Founder, undertaken at estimated prices.